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# FINANCIAL TIMES

No. 27,349

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## NEWS SUMMARY

GENERAL BUSINESS

### Nigerian Industry leader hopeful at Smith on pay border prospects

Amid speculation that Nigeria is to step up its contribution to black Africa's drive to end white rule in Rhodesia, President Olusegun Obasanjo arrived in Zambia and immediately accompanied President Kaunda to Victoria Falls on the border with Rhodesia.

President Obasanjo, who is touring southern African states, returned last night to Lusaka which was experiencing its second night of blackout and curfew. An official banquet was cancelled.

Lusaka and the strategic southern towns of Katwe, Livingstone and Chingola were darkened ghost towns. Residents must leave their homes from 8 p.m. to 5 a.m.

The Nigerian leader, who is an Army Lieutenant-General, was a member of the Nigerian contingent in the 1965 UN peacekeeping force in the former Belgian Congo, now Zaire. His country is expected to play a similar role in any such force in Rhodesia.

● **INDUSTRY** does not believe there will be a wages explosion in the next 12 months, judging by the latest Financial Times survey of business opinion. But it expects pay increases to be above the Government's 10 per cent target.

Demand and output are still expected to make a slow recovery. The pick-up in production is unlikely to be strong enough to offer real hope of an end to the rise in unemployment. Back Page. Details, Page 12

● **LEYLAND CARS** craftsman 10-day will discuss a plan to form a new company with the carmaker. The plan is to create a new company to seek a separate agreement with the Government's pay policy. The management is likely to oppose such a move. Page 10

● **ICI may quit research into tobacco**

ICI may pull out of any further research into tobacco substitutes. The company is disappointed with sales so far and with the lack of Government support for the project. Back Page

● **ROLLS-ROYCE** is to re-assess its research and development activities to discover where they can be strengthened. It has asked Dr. A. B. Silverstein and Sir William Cook to carry out the project. Back Page

● **HITACHI'S** proposal to open a factory to make TV sets in the North-East of England is being strongly opposed by two of the sector working parties formed as part of the Government's industrial strategy. They say the Hitachi plan threatens established U.K. television-makers. Back Page

● **FEROUS SCRAP** trade's turnover is well down on last year and some traders are making heavy losses. Merchants had hoped for a revival of demand for scrap as steel mills started up again this month after the summer shutdown. But instead there is a new sound of price cuts. Back Page

● **Laker seeks changes in Skytrain plan**

LAKER Airways chief, Mr. Freddie Laker, will ask the Civil Aviation Authority to allow major changes in his scheme for low-fare Skytrain flights between London and New York, in order to compete more keenly with cheap flights planned by other airlines. Page 7

● **OIL PLATFORM** construction yards can expect a new upsurge of orders in the next few years according to the study published by Aberdeen University. A sharp drop in orders in recent years has caused some U.K. yards to close. Page 7

● **TWO YOUNG U.K. executives**, Mr. John Chappell and Mr. Paul Webb, have won the Financial Times European Cup in the European Management Championship. Page 7

● **U.S. TREASURY** Bill rates (average effective yield): three 5.54 (5.574), six 5.545 (5.549) per cent.

● **MOORGATE** Mercantile Holdings, one of the first fringe banks to run into financial trouble as a result of the secondary banking collapse, will have its Stock Exchange listing restored to-day—31 years after it was suspended. Page 30

● **LAIRD GROUP** made pre-tax profit of £4.01m. (£3.37m.) on higher turnover of £59.55m. (£49.57m.) in the first half. Page 30

● **FRANCIS BEATS SUE**

Francis Austin (U.S.), aged 14, beat Sue Barker (Great Britain) 6-1 in the women's singles round of the U.S. Open tennis Championships. Page 2

● **BRIEFLY...**

Billy Graham, the U.S. evangelist, was cheered when he preached to 12,000 people at a Hungarian youth camp.

Scotland's touring rugby team beat Thailand 22-3 in Bangkok.

Ray Cross, Derbyshire's former cricket coach, will have his £50,000 fine reduced to £10,000 on appeal.

The Treasury has been offered by Benjamin Britten the director of musical manuscripts worth £1m in settlement of a death duty.

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## Engineer delegates at TUC rebel on 12-month rule

BY CHRISTIAN TYLER, LABOUR EDITOR, IN BLACKPOOL

Engineering delegates to this week's Trade Union Congress rebelled last night against their leaders, who are supporting the Stage Two rule about keeping a 12-month gap between wage settlements. After a furious confrontation they decided on a last-ditch attempt to change the Amalgamated Union of Engineering Workers official line.

Reflecting shop-floor anger at what they see as support for a further period of incomes policy, they warned that if the Engineering Section of the union went ahead and voted to uphold the rule, there would be at least a demonstration during the debate here on Wednesday.

The 12m. block vote of the Engineering Section may hold the balance in Wednesday's debate. Although there was no indication that the leadership would weaken in its decision to move a resolution upholding the rule, last night's angry scenes at the AUEW offices spell trouble for the Government's pay policy after Congress, whatever the outcome of the vote.

Earlier the Miners' Executive voted 18 to four to oppose the 12-month rule, despite the argument of Mr. Joe Gormley, their president, and Mr. Lawrence Daly, general secretary, that the union was committed to it by the pithead ballot in favour of Stage Two.

These ominous signs were added to yesterday when Mr. Jack Jones of the Transport Workers warned of severe difficulties on the shop floor in many factories if the 12-month rule was rigidly enforced, and if the Government pursued its tough line for single-figure wage settlements. The Transport Workers' 19m. vote is already committed against the 12-month rule and the policy of the TUC General Council.

The engineering union rebels held their own meeting after being instructed by the official decision of the leaders of the AUEW's four sections.

Twenty-three of the 26 lay delegates stayed behind and voted 21 to one, with two abstentions, against the interpretation of the Engineering Section's executive.

The seven-man executive has decided that the union's conference decision calling for an immediate end to incomes policy after Stage Two does not mean abandoning the 12-month rule.

While their discussion was going on delegates from other sections, and union leaders, left the building. It was lobbied by shop stewards and by about a dozen of the Trotskyist-organised Right to Work marchers.

There was a short and noisy fracas after one of the latter moved in front of Mr. E. E. Scamion, AUEW president, at the front door. He claimed that Mr. Scamion pushed him aside, before walking rapidly up the road followed by shouts and taunts.

Upstairs the rebels called in the Press and shop stewards. Mr. Ron Halverson, chairman of the East London Division Committee, explained their decision, to cheers and clapping.

He called the majority verdict of the Engineering Section an outrageous attack on the union's rules and an erroneous interpretation of the section's conference decision.

Before this Mr. John Boyd, general secretary of the Engineering Section, made it clear that the vote would be cast whatever happened, and said that there was nothing the delegates could do about it. He added that the close of the official delegation meeting had caused an immediate and vicious protest.

At midday Mr. Jones said after a meeting of the Transport Workers' 80-strong delegation to the union would strive to carry out the policy of Congress if the 12-month rule was carried. But he cast some doubt on the firmness with which that would be carried out.

Mr. Boyd said that the union's decision to support the 12-month rule was a mistake, and that the union should be free to negotiate wages as it saw fit.

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## Labour EEC row is brewing

BY PHILIP RAWSTORNE

LABOUR'S National Executive Committee set the scene yesterday for a divisive row at next month's party conference over Britain's membership of the Common Market.

In a hostile review of EEC policies to be presented to the Brighton conference, the committee claims that membership has added considerably to Britain's economic problems.

The NEC calls for a fundamental re-examination of the EEC's structure to provide for a wider but looser grouping of European States.

The committee's move is seen as a first step in a determined bid by the party's strong anti-market faction to scrap the present question of British membership.

Though Mr. Peter Shore, Environment Secretary and a leading opponent of the EEC, publicly accepted the NEC's proposal, he added that the issue of membership had been settled by the referendum.

"It would be foolish if we did not recognise that if present discontents continue to deepen and spread, the question of membership will again—and rightly—emerge."

Speaking at Brighton, Mr. Shore curtly dismissed the suggestion by Mr. Roy Jenkins, President of the EEC Commission, that failure of British Ministers to contribute to making the EEC a success had been responsible for public discontent.

"Frustration and disappointment have arisen because the reality of membership so sharply contrasts with the false and optimistic picture of our European future which was so sedulously propagated only a few years ago," he said.

Britain had to evolve a relationship with the EEC in which "the real and obvious burdens of membership were met by compensating benefits."

The wider gap between the power of our own sovereign Parliament and the power of the EEC is a reality which must be effectively preserved."

Mr. Shore said the starting point should be a Europe based on minimum rules and continuing to evolve as an independent member-State.

New arrangements that would enable each country to realise its own independent economic and social objectives is the main demand of the NEC document.

"Since joining the EEC, it is clear that economic problems have intensified," it says, critically reviewing Common Market policies in agriculture, energy, transport and trade.

Regional and social disparities in the Community were being widened, it claims.

On the question of the party's political reaction to their leaders' arrest, the Maulana said only that the party would not quarrel with the military authorities.

He indicated that the feeling among rank-and-file supporters of Mr. Bhutto would be that the elections would certainly be postponed.

A boycott of the elections, whenever they might be held, was, however, ruled out by Mr. Bhutto, the party's information secretary.

"We shall not abandon the field and our morale is very high," he declared. Many ordinary supporters of the opposition parties broke into a festive mood when the news of Mr. Bhutto's detention reached Lahore.

This city was in the forefront of opposition to Mr. Bhutto. There were reports to-night of a strike being called on rooftops as a sign of rejoicing.

## French in £350m. nuclear deal

BY ROBERT MAUTHNER

PARIS, Sept. 4.

FRANCE AND Japan are expected to sign a £350m. (about £250m.) contract in the next few weeks for the reprocessing of tonnes a year will be saturated 1,600 tonnes of spent, Japanese by 1985. It is planned to triple nuclear fuel at the Northern its capacity in the next five or six years to satisfy both domestic and foreign demand.

The French Atomic Energy Commission's subsidiary COGEMA—France's equivalent to British Nuclear Fuels—which is reported to have initiated the agreement in the early summer, is negotiating similar reprocessing contracts with the West German, Swiss, Swedish and Austrian atomic energy authorities, though for smaller quantities.

At the end of last week the chairman of DWK, the West German company responsible for nuclear reprocessing, confirmed that the West Germans hoped to agree with France on the reprocessing of 1,000 tonnes of nuclear fuels at La Hague. The Swedes are talking in terms of 800-700 tonnes.

France has a capacity problem; given the substantial reprocessing requirements resulting from its ambitious nuclear development returned to Japan before 1980.

Under the agreement Japanese nuclear fuels will be reprocessed at La Hague from 1983 and nuclear waste will be returned to Japan.

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ment programme. It is estimated that the plant at La Hague, which has a capacity of 800 tonnes between 1983 and 1992 to be able to carry out foreign contracts.

Finance for the expansion of the La Hague installations will be provided largely by the advanced payments which the Japanese have agreed to make under their contract with the French.

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## Lawyers fail to secure Bhutto's release on bail

BY SIMON HENDERSON

BHUTTO'S RELEASE ON BAIL LAWYERS to-day failed to secure the immediate release on bail of Mr. Zulfikar Ali Bhutto, the former Pakistan Prime Minister, following legal wrangles over procedure.

Mr. Bhutto, 49, is being held overnight in Lahore after being arrested on Saturday for questioning in connection with the murder of the father of a political opponent three years ago.

Leaders of the former opposition who had been calling for his arrest expressed great satisfaction.

One of them, retired Air Marshal Asghar Khan, said the trial should be speedy and open, adding that if it was necessary to finish the court proceedings, the general elections could be postponed slightly from the present date of October 18.

But the main opposition leader, Maulana Mufti Mahmood, said any postponement would "create unrest among the people and distract them from their goal."

Mr. Bhutto, who was removed from office in a military coup on July 5, was arrested at his seaside villa near Karachi just before dawn on Saturday in connection with the alleged murder of Nawab Ahmad Khan, the father of Mr. Ahmad Raza Kasuri, a former National Assembly member, who brought a private complaint in the Lahore High Court soon after the military coup against Mr. Bhutto.

In the complaint, Mr. Kasuri charged Mr. Bhutto with complicity in his father's death in a machine-gun attack in 1974 in a car in which he was also travelling at the time.

It is expected that Mr. Bhutto, who has not yet been charged, will appear in court on September 7.

The wrangles to-day which resulted in bail being refused concerned whether the case should initially be heard in Lahore's High Court or in a lower court. Mr. Bhutto has been remanded in police custody until September 10.

The former Prime Minister is facing other summonses as well. Two refer to alleged illegal detention in a secret prison camp in Pakistan-held Kashmir of two other former political opponents, Chaudhry Ishaq and Iftikhar Tarar, and another claims contempt of court, on the grounds that Tariq was allegedly sent to the camp despite his having pre-arrest bail from the Lahore High Court.

These summonses are expected to be served on September 10. The actual arrest of Mr. Bhutto was carried out by a squad of plain-clothes police. The martial law authorities of General Zia ul Haq are trying to appear above the proceedings, saying it is the affair of the civil courts.

But it is considered obvious among observers here that the arrest could not have been made without the permission of Mr. Bhutto was flown from Lahore to Karachi in an air force transport aircraft, and is being held under guard in a military compound in the town.

Official sources say, however, that he is being interrogated by the Federal Investigation Agency, a civilian body.

As soon as his arrest became known, top members of his Pakistan People's Party went to Lahore where they have been holding a series of meetings reviewing the situation.

After one meeting, the former Religious Affairs Minister, Maulana Kansar Niaz, said if the bail application failed again, a writ of habeas corpus might be filed.

On the question of the party's political reaction to their leaders' arrest, the Maulana said only that the party would not quarrel with the military authorities.

He indicated that the feeling among rank-and-file supporters of Mr. Bhutto would be that the elections would certainly be postponed.

A boycott of the elections, whenever they might be held, was, however, ruled out by Mr. Bhutto, the party's information secretary.

"We shall not abandon the field and our morale is very high," he declared. Many ordinary supporters of the opposition parties broke into a festive mood when the news of Mr. Bhutto's detention reached Lahore.

This city was in the forefront of opposition to Mr. Bhutto. There were reports to-night of a strike being called on rooftops as a sign of rejoicing.

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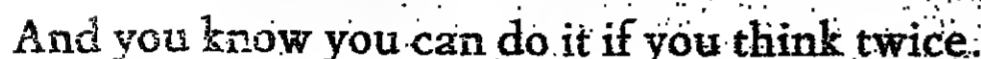
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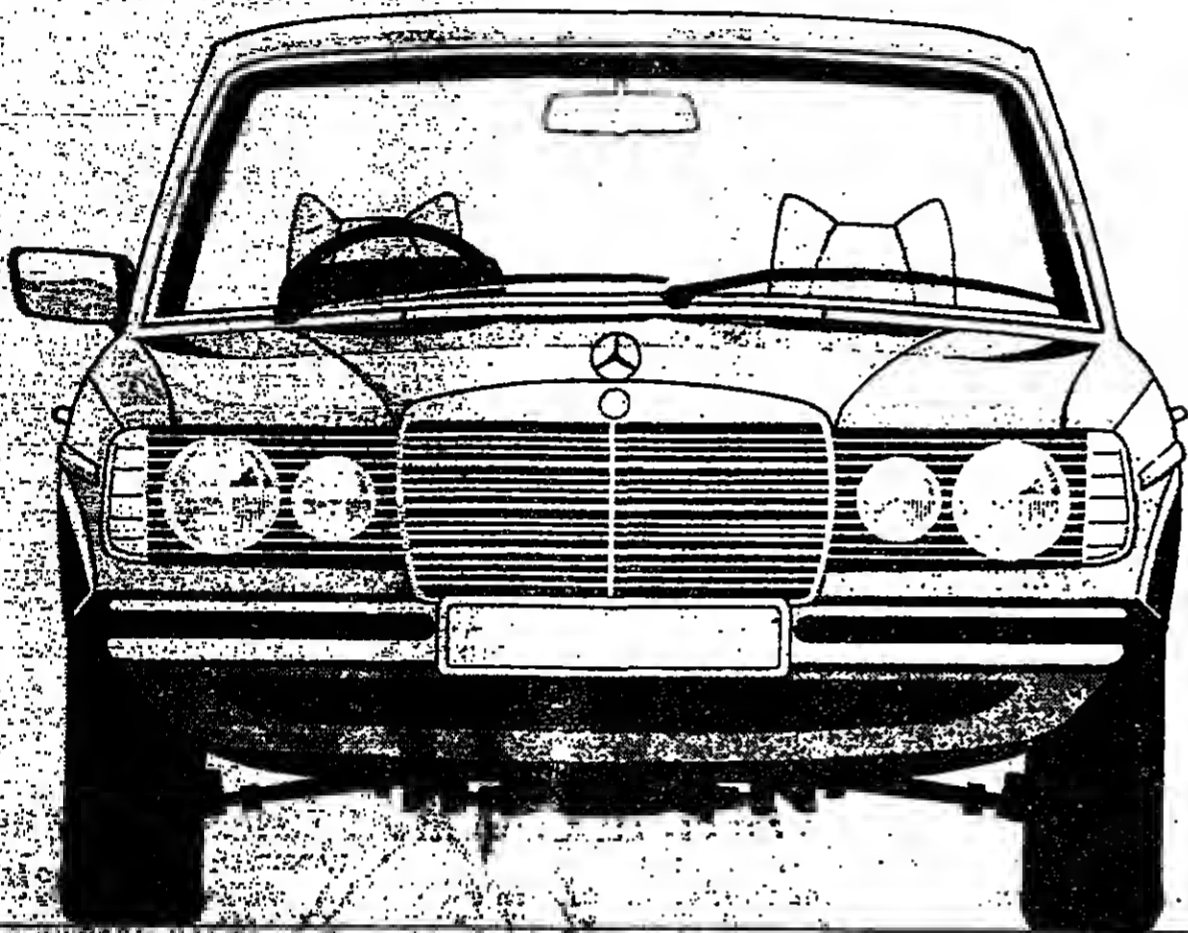
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# HOME NEWS

## Public sector borrowing figure out to-day

By MICHAEL BLANDIN

**BEST INDICATIONS** of the government's progress towards meeting its targets for public sector borrowing will be given by the publication to-day of the first three months of the borrowing requirement for the second quarter. The figures will show the public sector borrowing requirement for the second quarter, which is expected to be around £1,000 million, compared with the £1,100 million for the first quarter. The borrowing requirement for the second quarter is expected to be around £1,000 million, compared with the £1,100 million for the first quarter. The borrowing requirement for the second quarter is expected to be around £1,000 million, compared with the £1,100 million for the first quarter.

## Next Labour Government should abolish Lords

By PHILIP RAWSTORNE

**THE NEXT Labour Government** should be urged to abolish the House of Lords, the Labour Party's national executive committee has said in a statement published to-day. The statement says that the Labour Party's national executive committee has said in a statement published to-day. The statement says that the Labour Party's national executive committee has said in a statement published to-day.

## CONFIRMS £2m ORDER BECAUSE LEASE FINANCE WAS AVAILABLE

**IN** a bid over £2m, a company has secured a £2m order because lease finance was available. The company has secured a £2m order because lease finance was available. The company has secured a £2m order because lease finance was available.

**CORRECTION**

In the interim results for 1977 which appeared on Page 26 of the Financial Times dated 29 September, the sales and operating figures were incorrectly stated. The correct figures are as follows:

	1977	1976	Increase in %
Sales	3,687.4	3,348.6	+10.1%
Operating Profit	567.9	564.3	+0.5%
Profit after Tax	4,254.4	3,912.5	+8.7%

## THE LAIRD GROUP LIMITED

**Interim Results 1977**

Subject to audit

	Half year to 30 June 1977	Half year to 30 June 1976	Year 1976
Turnover	59,549	49,869	110,874
Profit before Tax	4,010	3,372	8,061
Tax	(1,400)	(980)	(2,156)
Profit after Tax	2,610	2,392	5,903
Extraordinary Items	—	—	(402)
Profit available for ordinary Stockholders	2,610	2,392	5,501
Dividends	(579)	(519)	(1,042)
Retained Profit	2,031	1,873	4,459

**Notes**

An interim dividend of 1.46p net per ordinary Stock Unit (1976: 1.31p net) will be paid on 5 December 1977 and it is intended to recommend a total dividend for 1977 of 37p net (1976: 2.63p net).

U.K. Corporation tax is deferred by capital allowances and stock relief. The tax rate consists of ACT of £300,000 (1976: £200,000) and overseas tax of £1,300,000 (1976: £700,000).

Under the Aircraft and Shipbuilding Industries Act 1977, the wholly owned subsidiary, Scottish Aviation Limited, was vested in the British Aerospace Corporation on 29 April 1977. The compensation for the equity is to be based on the value of the company in the six months up to 28 February 1974 and the results since that date are therefore for the account of the Corporation. For this reason, Scottish Aviation was not consolidated in the Group accounts for 1976 and has also been excluded from the comparative results for the half year to 27 June 1976.

4. Submissions for nationalisation compensation were made to the Government on 29 March 1977 but the terms of compensation have yet to be negotiated.

## Laker seeks better deal for Skytrain

By MICHAEL DONNE, AEROSPACE CORRESPONDENT

**MAJOR CHANGES** in the plan for low-fare Skytrain flights between London and New York will be sought by Mr. Freddie Laker, chairman of Laker Airways at a meeting in London to-day. He will ask the Civil Aviation Authority to lift the restrictions originally put on the Skytrain plan when it was first approved by the Government several years ago.

## Car exports still exceed imports

By MICHAEL BLANDIN

**THE SHARP** rise in Britain's imports of cars and motorcycles is highlighted to-day in a new study of the balance of external trade in U.K. industry. The figures show, however, that in spite of the increase in sales of foreign cars, the motor industry still exports more than it imports.

## Panavia in bid to sell Tornado to Canada

By MICHAEL DONNE

**PANAVIA**, the U.K.-West German consortium building the Tornado multi-role combat aircraft, is making a major bid to win an order from Canada. The Canadian Government has issued a "request for proposals" from major European and U.S. aircraft manufacturers to replace the ageing Voodoo and Starfighter combat aircraft in the Canadian Air Force.

**Initial reports** indicate that the U.S. manufacturers are strongly interested with the McDonnell Douglas F-15 Eagle, the Grumman F-14 Tomcat, the General Dynamics F-16 and the Northrop F-18 Hornet. The other European contestants include the French Dassault-Breguet Mirage F-1E.

## IN BRIEF

**Ulster 'swindle'**

Mrs. Jill Knight, Tory MP for Edgbaston, accused the Government of a "massive cover-up" of the "swindle" in the Ulster Housing Executive. She said she had raised the matter some time ago and "was ridiculed". But "although the Director of Public Prosecutions has had the police report in his hands since March, no action has been taken."

## Westward flies east

Mr. Peter Cadbury, Westward Television chairman, announced plans to start a scheduled air service, Air Westward, from the West Country to Paris, Brussels and possibly Amsterdam and Düsseldorf. The service will use a 15-seater Embraer Bandeirante 1102P aircraft. Licenses are being sought to fly from Plymouth, Exeter, Hurn and Southampton.

**Nilfisk**

The World's largest manufacturer of Industrial Suction Cleaners

## Perkins plans £9m engine

By Peter Cartwright, Midlands Staff

**PERKINS ENGINES** is spending £9m on plant and equipment to make a new diesel engine at its Peterborough, Lincs., factory, which will run off between 80,000 and 90,000 a year.

## Drink trade may win time

By Kenneth Gooding

**THE WINE** and spirit trade appears to have made a major breakthrough with its campaign to persuade the Government to grant a credit period on duty payments.

## U.K. team wins FT trophy

By Kenneth Gooding

**TWO YOUNG** U.K. executives won the European Management Championship near here at the week-end against competition from the national champions of Sweden, West Germany, Denmark, France and Ireland.

**Apply the U.K. victory** came at the Castle Gack—the leading business school of Germany—where executives have been criticised by British managers as sub-standard.

**Mr. John Chappell**, a 29-year-old cost and management accountant from Rank Xerox, said after receiving the Financial Times European Cup from Dr. Herbert Grunewald, chairman of the Bayer group: "We're now thinking of challenging the rest of the world."

**With Mr. Paul Webb**, aged 27, Mr. Chappell this summer won the U.K. national management title for the second year in succession.

**In the 1976 European championship**, they were well beaten by the Danish team. But this year the Rank Xerox pair accumulated a winning £7.1m profit in the computer-based European contest, in which the teams compete in running a "paper" company manufacturing and marketing consumer-durable products.

## Upsurge forecast in oil platform orders

By DAVID FREUD, INDUSTRIAL STAFF

**FURTHER CONFIRMATION** that U.K. yards building oil platforms can expect a resurgence in orders in the next four years comes in the latest North Sea study published by the University of Aberdeen's Department of Political Economy.

## Not as good

**THE PROSPECT** for concrete buildings are not as good. It is considered unlikely that any of them will be able to maintain a steady level of activity over the period. At least one will probably receive no orders at all. From the early 1980s, the need for production platforms will be small and two steel sites and one concrete are likely to be sufficient.

**Shell U.K. Production and Exploration** has appointed P & W Offshore Services to manage the installation of new production equipment on Bunt Field platform. The contract is believed to be worth about £7m.

**GLANFORD BOROUGH COUNCIL Welcomes continued Progress with the ARRIVAL of the M.180 in SOUTH HUMBERSIDE. DN20 8EZ.**

Enquiries to R.E. Crosby, Bigby Street, Brigg, South Humberside.

● PROCESSES

**Fast X-ray film dryer**

TO MEET the demands of high speed radiographic inspection in industry, particularly offshore, an X-ray film dryer has been developed which allows radiographs to be viewed dry within minutes of exposure. It is not necessary to unload the film from the spool, and up to 3 metres of 70 mm wide film can be dried in a minimum of 2 min. 45 sec.

The dryer consists of a wash tank, spin dryer and hot air dryer, which indicates how it works. Time in each of three sections can be varied according to need from 3 to 300 seconds. For safety, the wash and spin functions are operated by micro-switches on the lids of the compartments. The drying section is controlled by three 100 W elements. Power supply required is 250V, 40A, 50Hz. The device measures 108 x 83 x 46 cm deep, and weighs 110 kg. It is made by BTK (U.K.), Dolphin House, Commercial Way, Leighton Buzzard, Beds. (05253 67206), a member of the Esperanza group.

● COMPONENTS

**Better for the whales**

ESTIMATES BY the World Wildlife Fund indicate that there are only 600,000 sperm whales left—a figure which the conservationists say endangers the species. These whales are hunted in particular for the spermaceti wax found in their heads.

This wax is used in the manufacture of lipsticks, eye shadows, lotions, stick deodorants and other cosmetics, and because of the public reaction against whaling, the cosmetic makers have been looking for a substitute.

Witco Chemical of Barbourne Road, Worcester, WRI 1RT (0905 21531) has launched a synthetic spermaceti called Cyclo SPS. An ester, it is produced in white to off-white flakes, has a bland odour and a melting point of 45 to 47 deg. C.

The maker says it can be substituted for spermaceti on a one-to-one basis, and provides the same "false rigidity" as the natural product and the same sheen or gloss.

● HAND TOOLS

**Gets a grip on things**

MADE IN Sweden, of precision moulded glass filled polypropylene, a tweezer-plier with adjustable lock and self-opening handles is now available in the U.K.

Called the Stirex, this forceps-style tool has a locking device which can be slid up and down the handles, enabling the jaws to grip and hold objects ranging from hair thickness to 7 mm. It can be used without the lock. Tip width is 4 mm, total length is 165 mm, and weight is 14 grammes. The jaws are finely serrated and the tool is said to be non-hydroscopic, non-magnetic and resistant to most acids.

Marketing in the U.K. is by Tele-Production Tools, Stron House, Electric Avenue, West Cliff-on-Sea, Essex, SS0 9NW (0702 352719).

● COMMUNICATIONS

**No-charge trunk calls**

U.S. PRACTICE under which would-be users of nationwide services can call many of them in without incurring the trunk call cost penalty (IN-WATS Area Code 800) is likely to spread rapidly throughout the U.K. and Europe with a Sharjah Group move to take an interest in this service into Europe.

Although Group 800 was incorporated in Holland in 1973 to offer outside the U.S. a toll-free dialling system this appears to be the first major investment in it, and also the first equity investment by Sharjah anywhere. In the U.S., AT and T manages the system which is used by hotel, banks, airlines, and mail-order houses.

More on 01-235 9306.

● MANAGEMENT

**Business grasped at a glance**

THE IDEA of key executives being in a position to know the status of all aspects of their business, on demand and with no delay, has long been a gleam in the eye of computer men.

And if they felt they could entirely trust, not in mention afford it, no doubt the Boards of many companies would welcome such a panacea, too. Unfortunately, many such attempts, particularly in large companies, have assumed the qualities of a Pandora's box.

But in the smaller company where the bureaucratic overlay and the complexity are less, the chances of success increase. There are now many systems that will tackle distinct functions, or groups of functions in a business, but not too many that claim to do it all.

News of such a system came last week from Rascal Redac, which has put most of its effort, with great success, into computer-aided engineering design.

Interestingly, the system, called Redac Executive, has stemmed from the company's own desire for better overall control: a system is up and running at the Tewkesbury plant where it can be seen by intending customers—a distinct advantage in marketing terms.

Redac Executive is a complete visual display unit, disc store and printers) with software and the company claims that executives and secretarial staff can become completely competent in its use in a week or two. High level languages for both database manipulation and forecasting were specially developed. An initial sale has been made to a firm of accountants in Munich where, says Rascal, the database was set up in half an hour.

Using appropriate PDP 11 machines and disc storage, Rascal will be aiming at companies with perhaps 50 to 1,500 employees turning over between £1m. and £10m. a year. Likely number of terminals would be between two and ten.

Day-to-day use involves those with relevant data in the various departments keying it in, and those with a need to know extracting key summaries of what is going on.

**Instead of time clocks**

AN electronic time-keeping system for offices and factories has been launched by Automatic Revenue Controls (Europe).

In place of the punch clock and card racks is a small wall mounted display unit, which normally shows the time of day. Each employee has a plastic card (like a bank cash card), or a nylon key (about the size of a key) which on arrival or departure is inserted in the wall unit.

When the card is inserted the display shows the hours and minutes worked to date, and the employee's identification number. A number of terminals can be installed, and the card can be used at any of them. The terminal completes its operations in 100 milliseconds, which enables it to deal with up to 20 people/minute.

The terminals are wired to a central unit which calculates the hours and minutes attended and shows them in printed form ready for direct entry on the payroll system—if a computer is used, binary data is prepared. The system provides other advantages. The card can be used as an identity check, and can carry a magnetic stripe with other information, such as permitting access to security areas, or a number of other people on the premises can be shown at the central control, which is useful in an emergency—and for an absentee count.

A small data keyboard is connected to the central unit, which is used for adding hours to employees' records for such things as holiday, sick leave, off-site work, etc.

Systems available cater, in basic form, for up to 2,046 people and up to 15 terminals. The main memory stores up to 199 hours for each employee (and will note that an employee has not checked out for lunch). A closure has the seal mounted on the mating face, with the result that irregularities in assembly or installation (such as faulty welding) can lead to sea blowing out.

● INSTRUMENTS

**Easy motor testing**

A DYNAMETER test system for small electric motors made by Magtrol Inc. is offered on the U.K. market by Brookes and Green, Gosnell, Guildford, Surrey (045641 2956).

The compact unit can dynamically test motors having torques up to 200 lbs. in. through their whole speed and torque range, including no load and stall conditions.

Test torque is applied by a hysteresis loaded helical spring and repeatability while a compensated load cell measures the torque so as to give a proportional torque rise with applied current, inertia errors which arise from the rotating parts during acceleration and retardation, and are compensated by a built-in compensator.

Torque range of the instrument is 2.5 ozs in. to 200 lbs in. and calibrations in gm cm or given exactly the same run-up.

● METALWORKING

**Faster work with sheet**

AT THE Hannover machine tool exhibition in September (20 to 29), Trumpf and Company, of Stuttgart, West Germany, will be introducing three machines for high-speed sheet metal work.

All are computer numerically controlled (CNC), and the company is also launching a programming aid for numerical controllers. This is a mini computer which translates computer language to a language which varies, depending on the requirements of the particular machine tool concerned. It is available with software for various machine tools.

Elimination of tool change time on the twin head TC 3607 sheet machining centre, is claimed to make it the fastest of its type in the world. This machine punches, forms and nibbles sheet and plate up to 10 mm. thick and has a working range of 1.5 x 2 meters, without repositioning or turning the sheet. Tool sets are compiled while other components are in production, as the twin heads allow the automatic set up of one tool adapter while the other is in operation.

Another machining centre is the TC 130 which can punch, form and nibble sheet up to 5 mm. thick. Punch force of 150 kN enables it to cut 105 mm. diameter in 2.5 mm. thick sheet. Available with either semi or fully automatic tool change, it is controlled by a CNC microprocessor unit, and has a stroke rate up to 425/min.

Third machine is the BFZ drilling and milling centre, specially designed to eliminate the stresses caused by punching and nibbling, an important factor in machining thin and exotic alloys. This machine can take single or multiple sheets up to 15 mm. thick, and can carry out machining for 360 degrees around the periphery. Precision and separation of the components is automatic.

Details from Trumpf Machine Tools, Lyon Way, Hatfield Road, 10 mm. thick and has a working range of 1.5 x 2 meters, without repositioning or turning the sheet. Tool sets are compiled while other components are in production, as the twin heads allow the automatic set up of one tool adapter while the other is in operation.

● COMPONENTS

**Quick-action closure**

AVAILABLE in standard diameters from six to 60 inches, a quick-action lightweight door closure has been developed for scraper traps, filters, strainers, scrubbers, heat exchangers and a range of industrial pressure and vacuum applications.

Its seal consists of a heavy gauge O-ring recessed into the outer wall of the unit. Most closures have the seal mounted on the mating face, with the result that irregularities in assembly or installation (such as faulty welding) can lead to sea blowing out.

**Lighting to suit mood**

NOW IN full production for the Christmas trade is a device called the Moodsetter which provides adjustable control of table lamps or standard lamps to give any required level of lighting. The unit consists of an adaptor, which plugs into a 13A socket, connected by a two-metre cord to the remote control. Light intensity is varied by rotating the drum-shaped cap of the control, and the lamp is switched on or off by pressing the cap. Maximum load is 400 W.

Particular attention has been paid to eliminating radio frequency interference—a problem, with some dimmers, which is solved by the Moodsetter.

Details from MK Electric, Shrubbery Road, Edmonton, London, N9 0PB (01-807 5151).

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**Quick tool setting**

CALLED THE Checkspec machine has been designed off-line tool presetting and inspection. It is claimed to save up to 80 per cent. of tool setting time, and to pay for itself in a year. Using single or dual set (normal range up to 10 mm. set at right angles, the machine provides a digital readout 0.0001 inch. After initial set with a test bar or similar, the tool and its holder set on the machine by adjustment. Repeatability stated to be 0.0002 inch. A laser process is used for inspection.

Details from Arthur Cranmer Street, Nottingham NG3 4GL (0802 603247).

● HANDLING

**Mulox Bags Cut the Cos**

A SINGLE trip intermodal bulk container (IBC) has been developed by Miller Web Nylon webbing yarn is used in the body fabric of the tainer so that the webbing's lifting stress during handling is not reduced by the tainer's square (basically a woven plastic bag with webbing at the corners), which makes says improves stack and space utilisation.

Called the Mulox ST, the tainer has a safety factor in excess of 7 to 1 on a 1 tonne load. Depending on the density of product, the maker says that of packing and handling, be less than £3/tonne.

More from Miller Web Nylon, Aymer Parade, London N2 (01-340 4687) Telex: 27536.

Reported from the technical press in the Financial Times, 13th July.

**CONTRACTS AND TENDERS**

**THE HASHEMITE KINGDOM OF JORDAN**  
**JORDANIAN ARMED FORCES**  
**ROYAL MEDICAL SERVICES**  
**KING HUSSEIN MEDICAL CENTRE**

Tenders are to be invited from experienced contractors for works associated with the modernisation and expansion of the Catering and Laundry facilities at the King Hussein Medical Centre, Amman.

The work comprises:

1. Civil and building work with mechanical electrical services.
2. Supply and installation of specialised catering equipment.
3. Supply and installation of specialised laundry equipment.

Tenders may be submitted by contractors willing to undertake all work covered by categories 1 to 3 above, with the suppliers and installers of the specialised catering and laundry equipment being sub-contractors. Alternatively tenders may be submitted for the individual categories such that the employer will enter into separate direct contracts with contractors willing to offer tenders only for either category 1 or work in category 2 or category 3. Contractors may submit tenders for more than one of the three categories. Tenders for work in category 2 or category 3 will only be considered from manufacturers who can demonstrate their ability by the successful completion of comparable schemes and will be required to provide with their tender submission certified documents to meet the following criteria:

- (i) Previous experience of major hospital requirements involving both the supply and complete installation of equipment.
- (ii) Details of staff training capability in respect of equipment utilization and maintenance requirements.
- (iii) Details of local maintenance and spares availability.
- (iv) Comprehensive details of company financial status.

Tenders for civil and engineering work will only be considered from those contractors who are registered and classified as first class with the Ministry of Public Works, Jordan.

Where it is intended to employ sub-contractors for substantial sections of the work then similar details to those requested above must be provided.

Tenders will be based on designs and specifications prepared by the consultants appointed for the design and supervision of the works and the successful tenderer(s) will be required to provide the work on a lump sum basis.

Interested firms or would-be tenderers may examine the tender documents at either of the following addresses as of the first of September, 1977:

1. Chairman of the Prequalifying and Awarding Committee, General Headquarters, Jordanian Armed Forces, King Hussein Medical Centre, Amman, Jordan.
2. W. F. Johnson and Partners, Architects, Consulting Engineers, Quantity Surveyors, York House, Clarendon Avenue, Leamington Spa CV32 9PT, Warwickshire, England.

Duplicate copies of the tender documents can be obtained on application and by the payment of One Hundred Jordanian Dinars (One Hundred and Eighty Pounds Sterling) at the same addresses. Closing date for application 21 September 1977.

**UNITED REPUBLIC OF CAMEROON**  
**National Electricity Company of Cameroun**  
**NOTICE FOR INTERNATIONAL TENDERS FOR PRE-QUALIFICATION**

Building of the Electric Network in the South-Central District

The National Electricity Company of Cameroun (SONEL) will invite bids for the building of an electric network—high and low voltage—in the South-Central district. These bids for tenders concern the following lots:

LOT No. 1:  
776 km. of transmission line 30 KV.  
1 station of 90/30 KV.

LOT No. 2:  
225 km. of distribution lines.  
100 substations.  
3 main stations of 30 KV feed or distribution.  
The execution of the work is planned during 1978, 1979 and 1980.

Financing will be required from the tenderers. Interested parties in the first or the second lot should send in duplicate their references stating:

- experience in similar work;
- organisation;
- means and financial structure of their society.

Also stating the possibilities and conditions of eventual financing by either the tenderer or by banks of the tenderer's home country.

The bids for pre-qualification should be addressed to:

SONEL  
BP-4077  
DOUALA (Cameroun)  
Teler 3551 RN.

**SUDAN RAILWAYS STORES DEPARTMENT**  
**CONTRACT NO. 4925**

Supply of Roof Trusses for two Bonded Warehouses

NOTICE

1. Controller of Stores, Sudan Railways, Khartoum, invites tenders for the supply of the above Roof Trusses.

2. Details & Specification can be obtained from the office of Controller of Stores P.O. Box 65 Khartoum or from the Office of Stores representative at Catering Stores Khartoum on submitting a written application bearing 50mm. Stamp Duty and payment of L.S. 5,000/00 for one copy of details specification & drawing.

3. The closing date fixed for acceptance of tenders in this office is Saturday, 10 Sept. 1977, at 12.00 hours noon.

OFFICE OF CONTROLLER OF STORES

**INSTITUTO DE RECURSOS HIDRAULICOS Y ELECTRICOS**  
**REPUBLICA DE PANAMA**  
**INVITATION FOR INTERNATIONAL BIDS**  
**SID NO. 536-77**  
**FOR FINANCING, FURNISHING, DELIVERING AND INSTALLING HYDRAULIC TURBINES, GOVERNORS, SPHERICAL VALVES, GENERATORS AND TRANSFORMERS**

The Instituto de Recursos Hidraulicos y Electricos (IRHE) announces Sid No. 536-77 for the Financing, Furnishing, Delivering and Installing Hydraulic Turbines, Governors, Spherical Valves, Generators and for Power Transformers for the Panama Hydroelectric Project. Proposals will be accepted until 10.00 a.m. on November 29, 1977. Panama Room of the El Panama Hotel No. 111, Via Espana, Panama, City, Republic of Panama.

Work and services to be performed will include the financing, design, manufacture and installation and commissioning for commercial operation, the following equipment:

- A. Three vertical shaft multiple-impulse type hydraulic turbines.
- B. Three automatic governors.
- C. Three spherical valves.
- D. Three 85 kw vertical shaft generators, of 0.90 power factor.
- E. Three 100 MVA power transformers.

Sid Documents as well as all maps, plans, specifications, and proposal forms may be inspected at IRHE's office in Panama, Avenida Colon, Cuba Avenue No. 36 (Attention: D. Perdomo, Telephone 25-3523), or at the Main Income Tax Office located at Southside Tower, Prudential Center, Boston, Massachusetts, U.S.A. 02199 (Attention: C. J. McCreedy), or at the Panamanian Embassy in the United States of America, 1900 K Street, N.W., Washington, D.C. 20006, or at the Consulate General, Sweden, Germany, Switzerland, Brazil, Spain, etc.

The complete set of documents may be obtained directly from the Purchasing Department office of IRHE located in the Pan Building, 2nd floor, Juseo Arce Avenue and 26th and 27th Streets, at the City T. Main office in Boston, at a non-refundable payment of U.S.\$300 (U.S. dollars) per set.

Arg. Edwin E. Fabrega, General Director.

**CONTRACTS AND TENDERS**  
appear every MONDAY  
Rate £11.50 per  
Single Column Centimetre  
For further details contact:  
Francis Phillips on  
01-248 8200, Ext. 456

**REQUEST FOR PREQUALIFICATION**

The Indonesian Government, PN Batubara and PJKA have carried out preliminary studies related to an integrated coal mining and transportation project in South Sumatra intended to supply large quantities of coal to coal or dual-fired electric generating stations to be located in Java; the first phase of which would be 2 x 375 MW to come on stream in 1984/85. PN Batubara is the state-owned coal mining company and PJKA is the state-owned railway authority. The location of the generating station has been determined in previous studies. Feasibility studies of the rail transport terminal and materials handling facilities and sea transport have been carried out and a drilling program to accurately delineate coal reserves and coal quality in PN BATUBARA's Arikha concession at Bukit Asam is presently under way for completion in June 1978. The Government has requested the World Bank to provide a loan for this development which would provide for the retention of a Consultant/Project Manager to undertake:

- (i) Mine Systems Design and Evaluation: The preparation of a mining plan for development of the Bukit Asam coal reserves;
- (ii) Project System Evaluation: A total project system evaluation and costing so as to assure an optimum system of coal production and transportation that takes into account any variation in the quality of coal;
- (iii) Project Design: This should include the detailed engineering and costing out of the project, the preparation of a financial reporting and control system proposal and construction supervision, the commissioning of the facilities and initial operation, training, and the provision of advisory services during an initial period of full operations.

These functions will, except with respect to system optimization, be related to the coal mine, the railway, the coal loading port, the coal unloading system and the marine transportation system. They would also involve a continuing dialogue with the National power company and its consultants.

Project management and/or engineering consultants or consortia having substantial experience in inter-modal project management, design and construction supervision in overseas territories, and which are prepared to undertake a long-term operational role in mining and transportation based on practical experience, are invited to indicate their interest and to provide references. They should also detail their past performance in meeting deadlines, in staying within cost estimates, and in transferring skill and know-how to the client and their experience in any or all of the following fields: coal mining, coal fired power stations or other coal-related projects developed individually or as integrated systems including rail and marine transport; and state their experience in Indonesia and/or South East Asia. Firms should also provide detailed corporate information (copies of 10K forms and/or annual reports are required from public companies).

It is not required at this stage that any respondent make specific arrangements with sub-contractors or for joint ventures in carry out the functions described, although there would be no objections to the description of such arrangements, if they already exist or are forthcoming. It is anticipated that specialist sub-contractors, or joint ventures, acceptable to the Government or its agencies, may be required in some of the following fields: Coal Mining; drilling, geological and geotechnical analysis, open pit mine planning and operations; railway car loading-coal handling including stockpiling; Railways; signalling, operation of mixed general and bulk railways systems, maintenance and repair, track reconstruction, preparation of tariffs materials handling at minehead and marine terminals; Maritime transport: vessel design and construction supervision, marine operations, time charter management and supervision; Civil Works: soils analysis, wave studies; Financial: installation of management accounting systems, cost accounting; Training: financial, technical training for mine, railway, and vessel operations and maintenance. Replies to this inquiry should indicate which of these, or other, fields of activities the Consultant deems to be lacking in his organization and provide general details of any joint venture agreements. For information, joint ventures, if selected, would be required to provide substantial financial guarantees and indemnities in order to assure successful project completion and operation, regardless of any changes in the status of the joint venture.

It is not anticipated that coal washing facilities will be required.

Timing of Activities: Mobilization should be completed by March 1978. The first priority would be to determine, on the strength of volume and coal quality data produced by the drilling program, the mining cost to provide, in conjunction with cost and price information given in transport studies already completed, data sufficient to prove the economic feasibility of coal mining at Bukit Asam and the transport of coal to Surabaja on the West coast of Java, so that a decision could be taken by the end of June 1978 on implementing a dual fired electric power plant project. Requests for prequalification should be received October 1, 1977 by:

PN TAMBANG BATUBARA  
Attn. 10: President Director  
11: Prof. Dr. Supomo SH No. 10  
JAKARTA SELATAN, INDONESIA (12 copies)

The World Bank  
Industrial Projects Department  
1818H Street, N.W.  
WASHINGTON, D.C. 20443 USA (8 copies)

and  
World Bank  
Resident Staff, Indonesia  
P.O. Box 334/JKT  
JAKARTA, INDONESIA (2 copies)

After an initial review of proposals, all of those evaluated as having adequate relevant experience and having received successful and timely project management and construction supervision in overseas territories, and which are prepared to undertake a long-term operational role in mining and transportation based on practical experience, are invited to indicate their interest and to provide references. They should also detail their past performance in meeting deadlines, in staying within cost estimates, and in transferring skill and know-how to the client and their experience in any or all of the following fields: coal mining, coal fired power stations or other coal-related projects developed individually or as integrated systems including rail and marine transport; and state their experience in Indonesia and/or South East Asia. Firms should also provide detailed corporate information (copies of 10K forms and/or annual reports are required from public companies).

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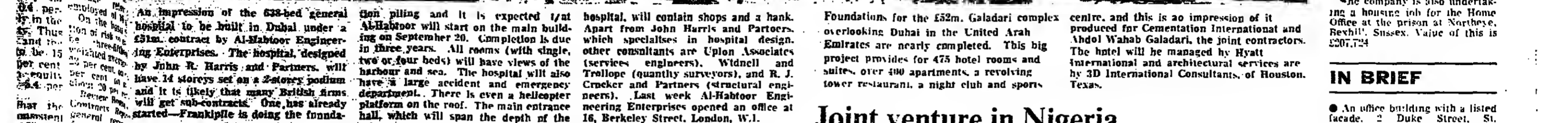
the right to accept or reject any tender offer  
without providing any explanation.

**MODERN USED ROLLING MILLS**, wire  
rod and tube, drawing plant—roll  
forming machines—slitting—flattening  
and cut-to-length lines—cold saws—  
presses—cutting lines—etc.

THE LAS VEGAS FOOLIES TT  
A GLITTERING EXOTIC  
STAGE SPECTACULAR  
Last 2 weeks



# Building and Civil Engineering



An impression of the 638-bed general hospital to be built in Dubai under a \$31m. contract by Al-Habtoor Engineering Enterprises. The hospital, designed by John R. Harris and Partners, will have 14 storeys set on a 2-storey podium and it is likely that many British firms will get sub-contracts. One has already started—Franklin is doing the foundations piling and it is expected that Al-Habtoor will start on the main building on September 20. Completion is due in three years. All rooms (with single, two or four beds) will have views of the harbour and sea. The hospital will also have a large accident and emergency department. There is even a helicopter platform on the roof. The main entrance hall, which will span the depth of the hospital, will contain shops and a bank. Apart from John Harris and Partners, which specialises in hospital design, other consultants are Upton Associates (services engineers), Widdell and Trollope (quantity surveyors), and R. J. Crocker and Partners (structural engineers). Last week Al-Habtoor Engineering Enterprises opened an office at 16, Berkeley Street, London, W.1.

## £7m. awards to Kier £5m. orders for Budge

THREE CONTRACTS totalling £5m. have been won by A. F. Budge (Contractors). For Durham County Council, the company is undertaking a reclamation scheme at Mainsforth Colliery, Ferryhill. It involves the partial removal and reshaping of a 200 ft. high pit spoil heap covering 350 acres. The surrounding area will be stripped of topsoil and subsoil and the 2m. cubic metres of waste will be spread over the exposed area. The site will then be contoured and topsoiled and returned for agricultural use. The other contracts are from the National Coal Board Open-cast Executive. One is for the extraction and recovery of 674,000 tons of washery grade coal from a site at Limekiln near Wellington, Shropshire, just outside Telford New Town. The scheme covers an area of over 80 acres and involves the recovery of coal from six different seams at a depth of up to 200 feet. The third award, at Hunters open-cast site near Bishop Auckland, is an 18-month contract for the extraction of 144,000 tons of coal. The site covers an area of 100 acres and is at present used as grazing land. The coal will be obtained from eight seams which range in thickness from under 8 inches to over 6 feet.

Other jobs are for Amber Fashions in London, Newcastle and Manchester (design consultant is Nicholas R. Durnell-Smith) and for Peter Lord which is to have two shoe shops fitted out, one in Folkestone and the other in London.

## Bank and computer centre

CONTRACTS valued at £31m have been awarded to J. Jarvis. For the National Westminster Bank the company is reconstructing and modernising its premises in King Street, Manchester. The architect is Reynolds and Scott. At Wythenshawe, Manchester, TSB Computer Services has commissioned a new computer centre which will serve 1,000 branches of the Trustee Savings Banks from the Scottish border to the Bristol Channel including Wales and East Anglia. The complex has been designed by the Gilling Dod Partnership.

Another job is a centre at St. Helens, Lancs., which is to replace a 19th-century drill hall for the Territorial Auxiliary and Volunteer Reserve Association. Stroud Nallus and Partners are the architects.

## Conversion work by Wates

FOUR housing contracts together worth over £1m. have been won by Wates Special Works. The largest (£565,951) has been awarded by the Property Services Agency and covers the improvement of married quarters on the Greenhill Estate of Woolwich Garrison. Twelve 2-storey terrace blocks will be converted into 48 modern homes. At the former RAF fighter base, North Weald, Essex, the officers' mess is to be converted into hostel accommodation for homeless families under a £13,361 contract from Copple Forest District Council while on the Woodbridge Estate, Islington, 14 Victorian houses are to be converted at a cost of £231,621 into 26 modern homes.

For the Royal Borough of Kensington and Chelsea, Wates is repairing a post-war block of flats at a cost of £114,900. Work will include underpinning of the foundations. Wates has also won a £360,000 contract to cover the first phase of converting the former United Service Club in Pall Mall, London, into headquarters for the Institute of Directors.

## Encouraging further development

ENTRIES are expected from 14 countries in Western and Eastern Europe for the 1978 Europrefab System Building Golden Trophy Prize awarded for buildings or building complexes which, in the opinion of an international panel of judges, are most significant for the further development of industrialisation and building technology. There are three categories: housing, non-housing and civil engineering. Commemorative medals are to be presented by the System Builders' Section of the National Federation of Building Trades Employers to members submitting what are judged to be the most outstanding. Brit is designed and built entries in the housing and non-housing categories. Details can be obtained from Mr. A. B. B. Dainton, NFBTE, 82, New Cavendish Street, London W1M 5AL.

## Joint venture in Nigeria

LONDON Brick Buildings of Leamington Spa has formed a joint venture operation in Nigeria to manufacture system buildings. Banbury Systems (Nigeria) is 30 per cent. owned by the Leamington company, a subsidiary of London Brick, and a further 10 per cent. is held by the Blue Circle Group. Sixty per cent. of the new company is in Nigerian hands. A new manufacturing plant is now under construction on a 3-acre site in the northern town of Kaduna. The factory is scheduled for completion by early November, although production is due to begin next month. It will be in full production by the end of the year. The plant is expected to have a turnover of around £1.5m. in its first full year and LBB is confident that the figure will rise to £5m. by the third year of basic material for LBB operations.

Mr. Peter Marland, group sales and marketing director of LBB, believes Nigeria offers good sales opportunities. "There is no doubt that we will be operating in an enormous market with tremendous potential and although there is some competition in the systems building sector we expect to do very well." Although no firm plans have yet been drawn up, the company has a local merchant/contractor, the Banbury Union Construction banner and is handling a variety of contracts, from cladding and walling work to hangar units. The operation is expected to make a modest profit this year.

## Bringing the E to EC2

At 99 Bishopsgate are two exotic banking halls. One is resplendently Middle Eastern in appearance and the other, illustrated, exquisitely Chinese. They were built and fitted out by Trollope & Colls, perfectionists in the ancient crafts of gilding, glazing, plastering, tiling and the working of wood, stone and marble. We do not confine ourselves to interiors. Or ancient crafts. We built the new Stock Exchange, Alderman's Court, The Daily Express Building and many more City landmarks, including the towering 99 Bishopsgate itself.



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Phone Tim Mason on Milton Keynes (0908) 749711— he'll tell you about Terrapin unit buildings and portable cabins post the coupon below for literature and advice.

# STODDARD HOLDINGS LIMITED

(Carpet Manufacturers)

GROUP RESULTS FOR THE YEAR ENDED 31ST MAY 1977

	1977	1976
TURNOVER	19,443	17,025
TRADING PROFIT	1,961	1,300
Loss on Exchange (1976-Profit)	17	(242)
Depreciation	296	251
Finance Charges	328	237
TRADING PROFIT BEFORE EXCEPTIONAL PROVISION	1,310	964
Exceptional Provision (see Note 1)	147	—
	1,163	964
Associated Companies	18	(12)
PROFIT BEFORE TAX AND EXTRAORDINARY ITEM	1,181	952
Overseas Tax	11	30
Deferred Tax	601	411
PROFIT BEFORE EXTRAORDINARY ITEM	563	481
Extraordinary Item (Note 2)	46	—
PROFIT AFTER EXTRAORDINARY ITEM	517	481
DIVIDENDS AND RETAINED PROFITS		
Preference dividend paid	10	10
Ordinary and A' Ordinary Interim paid 7th April 1977—0.5100p (1976—0.4602p)	41	38
Final proposed—0.7842 (1976—0.7038)	64	56
Profits retained	715	104
	402	377
	517	481
CAPITAL EMPLOYED		
Ordinary and A' Ordinary Shares	2,000	1,000
Preference Shares	500	300
Reserves and retained profits	4,159	4,787
	6,459	6,087
Deferred Credit	517	491
Loans	643	782
Deferred Taxation (Note 3)	2,033	1,535
	9,557	8,845
NET ASSETS		
Fixed Assets	4,193	4,221
Investments	46	28
Patents	519	409
Short term borrowings	(2,353)	(1,647)
Current Assets less Liabilities	7,382	5,394
	9,557	8,845
EARNINGS PER SHARE		
—before tax	14.6p	11.5p
—after tax	6.9p	5.9p

## NOTES: 1. EXCEPTIONAL PROVISION

On 16th August 1977 a Receiver was appointed to a major customer. Since the customer's holding company is also in Receivership the Directors have considered it prudent to provide in full against all amounts owing, notwithstanding that these events occurred after the Balance Sheet date.

## 2. EXTRAORDINARY ITEM

Purchase of Patents, less taxation relief.

## 3. DEFERRED TAXATION

In the absence of clear guide lines from Accounting bodies, Deferred Tax has continued to be provided on a consistent basis. In the opinion of the Directors, however, the amount now provided is substantially in excess of any likely liability to tax in the foreseeable future.

## COMMENTS BY THE CHAIRMAN, SIR ROBERT A. MACLEAN

Despite quieter trading in the home market during the last few months of the year than had been expected, turnover has increased by 14% overall and by more than 42% in export markets, which now account for 37% of group sales.

Over the last year both raw material and factory costs have continued to rise, necessitating in turn several price rises in our products. Management at all levels continues to strive for maximum economies in operating costs and plant utilisation.

Despite hesitancy in the home market, the company continues to have faith in the long term future of the industry and through new investment plans are moderate compared to those of some recent years, no less than £500,000 has been approved by the Board for further plant and buildings.

During the year, and at short notice, the Government withdrew the Regional Employment Premium, which in our case amounted to over £200,000 a year. Whilst we may have been the underlying principle behind the original introduction of Regional Employment Premium, it was regarded by us, as by many others in Scotland, as an offset against the higher cost of transport incurred in servicing the main markets of the South or in longer hauls than those experienced by Southern based companies to Liverpool, Southampton and other ports from which our exports are shipped. We deplore this apparently ill-considered Government decision as it must adversely affect many concerns operating in the perimeter Development Areas, particularly Scotland.

Before arriving at the results, an exceptional provision of £147,000 was made against the total debt owing by a major customer. As only a few months earlier the customer concerned had received substantial financial assistance from Equity Capital for Industry, in whose judgment your Board placed some considerable confidence, trading on a large scale continued which in other circumstances would have been subject to restriction. One can only express surprise that a company which was judged worthy of substantial financial support from Equity Capital for Industry should go into receivership so soon afterwards.

In comparing the pre-tax profit with that of the previous year an increase of some 25% has been achieved despite the withdrawal of Regional Employment Premium, the absence of comparative substantial exchange gains, and a quite exceptional provision for the potential bad debt referred to above. The result reflects the growing strength of the group in its trading operations.

The Board recommends a Final Dividend of 0.7842p which, together with the Interim Dividend of 0.5100p, makes 1.3102p for the year, being an increase of 10% or the dividend paid last year, which is in conformity with current dividend restraint.

Subject to approval at the Annual General Meeting the Final Dividend will be payable on 1st December, 1977, to shareholders on the Register at the close of business on 14th October, 1977.

31st August, 1977

This advertisement is issued in compliance with the requirements of the Council of The Stock Exchange.

## MOORGATE MERCANTILE HOLDINGS LIMITED

(Incorporated under the Companies Acts 1948 to 1967)

## SHARE CAPITAL

AUTHORISED £3,500,000 ISSUED & FULLY PAID £1,528,275.40p

In Ordinary Shares of 10p Each.

The Council of The Stock Exchange has restored the listing of the Company's issued share capital.

Full particulars of the Company are available in Extel Statistical Services Limited, and copies may be obtained during normal business hours (Saturdays excepted) up to and including 18th September 1978 from:

JOSEPH SEBAG & CO.  
Ruckersbury House,  
3 Queen Victoria Street,  
LONDON, EC4N 8DX

# FT Monthly Survey of Business Opinion

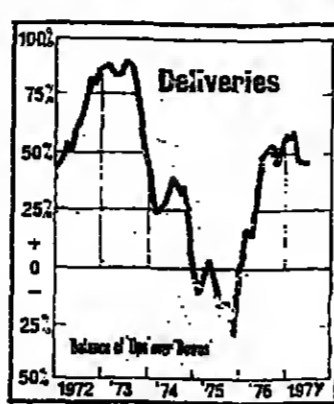
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## GENERAL OUTLOOK

## Confidence evenly balanced

INDUSTRIAL CONFIDENCE is currently in a rather uncertain state—reflecting some of the wider doubts about the economy. The overall index showing the balance of companies more optimistic about their prospects over those less optimistic compared with four months ago shows virtually no change this month. It is significant that over half the companies take a neutral stance on this question. Within the three sectors interviewed this month, the larger engineering companies tend to be less optimistic because of the continued absence of a significant upturn in the U.K. economy.

Optimism about the prospects



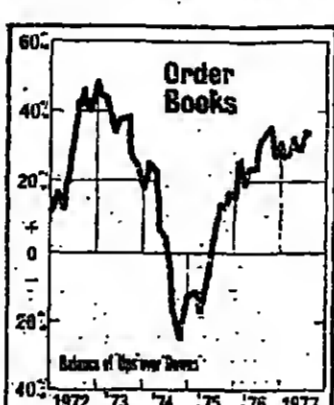
but there are a number of specific comments about the uncertainties at present on pay policy.

The one clearly optimistic feature of the survey remains exports where the proportion of companies expecting exports to be higher during the next 12 months is still at a very high level. However, the percentage of companies in the engineering sector which are more inclined to expect exports to remain the same rather than to increase is greater than last April. Companies in all three sectors show a greater inclination to mention price competition and the erosion of the exchange rate advantage.

## ORDERS AND OUTPUT

## Slow recovery in demand

A SLOW RECOVERY in both demand and output is indicated by the latest survey. The index of the trend of new orders over the last four months has stabilised after declining during the previous three months; there has been an especially strong advance in the paper and connected sector. This 'pick-up' in demand has boosted order books though three-quarters of the engineering companies report unchanged order books and this



indicator shows virtually no change overall compared with last month.

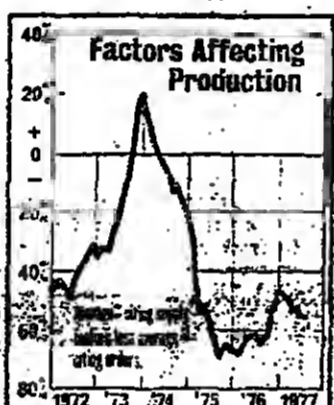
## Ground regained

Projections of production/sales turnover also shows the paper and connected sector to be both more optimistic than when last surveyed in April and the most bullish overall. The result is that the median expected rise in production has recovered some of the ground lost last month.

## CAPACITY AND STOCKS

## Orders the main restraint

A SHORTAGE of orders continues to be the main factor holding back production with a slight increase in the number of references to a lack of export orders. But a few supply factors are now beginning to feature more prominently—in particular there has been a noticeable increase in the last month in the proportion of companies in all three sectors mentioning labour disputes. But in some cases there is the fear of trouble rather than its appearance so far. Several companies have referred again to difficulties in getting or keeping skilled labour because of pay restraint. There has been little change



in the indicator for the level of capacity working. But the fact that a majority of companies are working at planned output levels may merely indicate that a low level of activity has been planned (well below actual production capacity) to reflect expected demand.

The recent depressed level of sales is reflected in the slight increase in the proportion of companies saying their level of stocks is too high. This view is most marked among some larger engineering groups. In general more companies expect their stocks of raw materials and finished goods and of work in progress to rise during the coming 12 months.

## CAPACITY WORKING

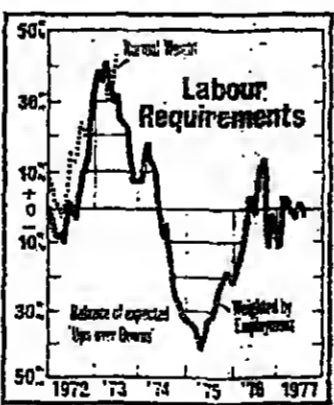
	4 monthly moving total	August 1977
	May Aug. July June	May (non-elec.) Distills. Paper
Above target capacity	14 15 10	11 6 20
Planned output	69 68 72	62 61 39 75
Below target capacity	16 14 15	23 33 61 5
No answer	1 3 3	4

## INVESTMENT AND LABOUR

## Caution over jobs and spending

THE SURVEY yet again provides little hope of an early halt to the rise in unemployment. There has been a continuation of the pattern of the last few months with a roughly equal balance between those companies expecting to increase their labour force during the past 12 months and those projecting a decline.

The prospects for capital investment are also rather disappointing as the proportion of companies expecting expenditure to rise in volume during the next 12 months and those intended to decline. Among the



both the engineering and brewing and connected sectors are less inclined than previously to project a rise in expenditure although there was some improvement in the paper sector.

While in some instances investment represents genuine expansion, in many cases substantial projects involve the replacement or upgrading of existing facilities. All three sectors are more inclined to say their liquidity levels are too low in relation to requirements than when last questioned in April and this indicator has fallen back sharply.

## GENERAL BUSINESS SITUATION

	4 monthly moving total	August 1977
	May Aug. July June	May (non-elec.) Distills. Brews. &
Are you more or less optimistic about your company's prospects than you were four months ago?		
More optimistic	32 32 39 37	10 65 9
Neutral	55 56 50 52	76 35 4
Less optimistic	13 12 11 11	74

## EXPORT PROSPECTS (Weighted by exports)

	4 monthly moving total	August 1977
	May Aug. July June	May (non-elec.) Distills. Brews. &
Over the next 12 months exports will be:		
Higher	89 89 87 87	86 94
Same	7 7 8 11	14 6
Lower	3 3 4 2	—
Don't know	1 1 1	—

## NEW ORDERS

	4 monthly moving total	August 1977
	May Aug. July June	May (non-elec.) Distills. Brews. &
The trend of new orders in the last 4 months is:		
Up	53 52 55 57	60 37
Same	20 22 22 24	13 2
Down	15 18 14 14	27
No answer	12 8 9 5	61

## PRODUCTION/SALES TURNOVER

	4 monthly moving total	August 1977
	May Aug. July June	May (non-elec.) Distills. Brews. &
Those expecting production-sales turnover in the next 12 months to:		
Rise over 20%	2 2 2 3	—
Rise 15-20%	5 5 5 4	2
Rise 10-14% overall	17 19 23 20	16 14
Rise 5-9%	32 28 26 27	40
About the same	38 40 37 40	43 68
Fall 5-9%	—	1
No comment	6 6 5 5	1 16

## STOCKS

	4 monthly moving total	August 1977
	May Aug. July June	May (non-elec.) Distills. Brews. &
Raw materials and components over the next 12 months will:		
Increase	32 26 29 27	17 82
Stay about the same	45 51 54 57	56 16
Decrease	12 12 10 15	27 2
No comment	11 11 7 1	—
Manufactured goods over the next 12 months will:		
Increase	36 31 34 27	16 76
Stay about the same	35 40 45 56	40 18
Decrease	8 10 6 3	4 28
No comment	21 23 16 13	16

## FACTORS CURRENTLY AFFECTING PRODUCTION

	4 monthly moving total	August 1977
	May Aug. July June	May (non-elec.) Distills. Brews. &
Home orders	82 85 81 82	97 30
Export orders	52 49 44 44	44 72
Executive staff	19 21 26 23	12
Skilled factory staff	23 22 19 16	81
Manual Labour	6 4 4 4	33
Components	2 4 4 3	—
Raw materials	10 12 12 12	—
Production capacity (plant)	11 15 16 8	14
Finance	— 1 2 1	—
Others	8 8 7 6	14
Labour disputes	18 11 13 12	53 61
No answer/no factor	5 6 6 7	—

## LABOUR REQUIREMENTS (Weighted by employment)

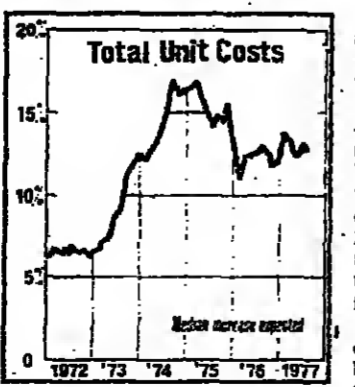
	4 monthly moving total	August 1977
	May Aug. July June	May (non-elec.) Distills. Brews. &
Those expecting their labour force over the next 12 months to:		
Increase	18 20 20 23	26 9
Stay about the same	62 62 57 53	43 91
Decrease	19 18 23 24	31
No comment	1	—

## CAPITAL INVESTMENT (Weighted by Capital Expenditure)

	4 monthly moving total	August 1977
	May Aug. July June	May (non-elec.) Distills. Brews. &
Those expecting capital expenditure over the next 12 months to:		
Increase in volume	46 52 59 57	38 20
Increase in value but not in volume	10 6 6 6	15 73
Stay about the same	12 13 12 10	—
Decrease	30 27 22 26	47 6
No comment	2 2 1 1	—

## COSTS AND PROFIT MARGINS

## Wages to rise over 10%

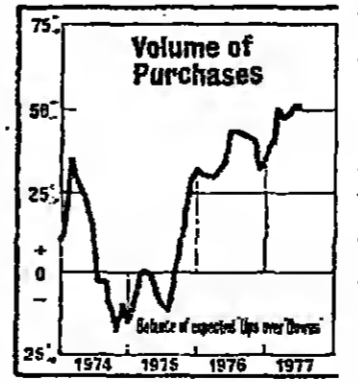


In the late summer of 1976. But a quarter of the sample are still not prepared to take a definite view on this question. But a more favourable trend in other costs, presumably mainly the cost of raw materials, has led to a slight decline in the median expected rise in unit costs. The result is that there has been little change in the forecast rise in prices during the next 12 months—still comfortably into double figures.

While the overall indicator on expected profit margins has hardly changed, both the engineering and the paper and connected sectors are inclined to believe that their margins will contract during the next 12 months.

These surveys, which are carried out for the Financial Times by the Taylor Nelson Group, are based upon extensive interviews with top executives about their companies' situation and prospects.

Three industries, and some 30 companies are covered in turn every month. They are drawn from a sample based upon the



FT Actuaries Index, which accounts for about 60 per cent of the turnover of all public companies. The weighting is by market capitalisation save where an alternative method of weighting is cited.

The all-industry figures are four-monthly moving totals, covering some 120 companies in 11 industrial sectors. Imbalance in engineering is surveyed every second month. Complete tables can be purchased from Taylor Nelson and Associates.

## COSTS

	4 monthly moving total	August 1977
	May Aug. July June	May (non-elec.) Distills. Brews. &
Wages rise by:		
0-4%	—	—
5-9%	17 18 18 27	14
10-14%	44 39 40 31	44 64
15-19%	10 7 4 3	54
20-24%	2 2	—
25-29%	1 1	—
No answer	26 33 38 32	20
Unit cost rise by:		
0-4%	3 2	—
5-9%	15 14 14 13	27
10-14%	48 49 55 46	63 80
15-19%	19 21 14 20	9
20-24%	4 5 5 4	—
No answer	11 9 12 12	14

## PROFIT MARGINS

	4 monthly moving total	August 1977
	May Aug. July June	May (non-elec.) Distills. Brews. &
Those expecting profit margins over the next 12 months to:		
Improve	47 48 52 45	20 80
Remain the same	35 32 30 37	47 20
Contract	14 14 13 13	33
No comment	4 6 5 5	—

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Monday September 5 1977

## The end of SALT 1

IT IS NOW a near-certainty that the Americans, for example, believe that their own fixed-expiry of the five-year interim strategic arms limitation agreement (SALT 1) between the Soviet Union and the Soviet Union will pass without agreement on a successor. There need not be anything very worrying about that: a period of a few months without an agreement would be short to allow either side to take advantage of the lapse, and the two sides are, after all, negotiating with every professed intention of reaching agreement in the end.

## Vulnerable

What is much more a cause for concern, however, is the evidence of the shortcomings of SALT 1 and the fact that there is, as yet, no sign that there will be made good in SALT 2. SALT 1 has two obvious justifications: it was the most visible sign of Soviet-American détente and it was the first time that the two superpowers mutually agreed to set limits on their strategic arsenals. Most of the shortcomings became apparent only in retrospect. The ceilings imposed, for example, were too high—higher than the existing number of strategic weapons. They did not take account of technological improvements: for instance, the introduction of multiple warheads and the development of greater accuracy. The strategic competition thus continued, though under certain rules. In no sense was SALT 1 a measure of disarmament, and only very broadly was it a measure of arms control.

The test of SALT 2, if there is such an agreement, will be how far it remedies these deficiencies. This is more than an academic question of reducing the degree of "overkill"—the amount by which each side can destroy each other several times over with existing arsenals. It means reducing the possibilities of either side altering the present rough strategic parity by achieving its own strategic breakthrough. The present parity is based on a belief that neither side could cause sufficient damage by a first nuclear strike to eliminate the possibility of a nuclear response, but that could change.

## Defining a fair rate of profit

MOST PEOPLE can recognise an abnormally low return on capital employed when they see it, or an abnormally high one. But to define precisely what constitutes a fair return is not at all easy. The Price Commission, the Monopolies Commission and other bodies make such judgments from time to time, but in only one field is there machinery for defining a fair return and reviewing it on a regular basis. This is the pricing of non-competitive government contracts. An agreement on a profit formula to govern these contracts was reached in 1968 and an independent Review Board set up.

## Authoritative

In the early days of the Review Board's existence inflation was relatively low and industry was earning a real return on its assets which was generally accepted as adequate. The drastic decline in real profitability over the last few years has both complicated the Board's task and given its work an importance which goes beyond the particular interests of the defence contractors. In the absence of agreement on inflation accounting, it is especially useful to have an authoritative assessment—and one to which the Government has to respond—of what real rate of return industry should reasonably expect to earn.

In 1968 the target return was set at 14 per cent, of capital employed, on a historic cost basis, and it was increased marginally to 14.3 per cent in 1970. In 1974, the Board, taking into account the effects of inflation, recommended an increase to 20 per cent, but this was cut back by the Government to 18 per cent. In looking at the situation three years later the Board was faced with conflicting arguments from Government and industry. The Government put great weight on the clause in the 1968 agreement which defines a fair return as "equal on average to the overall return earned by British industry." If British industry happens to be earning a very depressed return, this is not the point. The agreement cannot be used to give defence contractors a higher return than

they would earn in the market place on other work. The contractors, on the other hand, argued that a fair return on capital must be such as to enable the defence industry to be maintained in an efficient and viable condition. Profits in the recent past should not be used as the reference point because they had been depressed by the recession and the Price Code. They therefore called for an entirely new formula to be established from first principles, starting from the cost of capital on a risk-free basis and a normal allowance for risk and innovation, then building in a special allowance for risk (justified by the nature of the defence industry) and an allowance for additional investment needs.

In assessing these arguments the Board accepts the principle of comparability with the rest of industry, but does not accept that the immediate past performance of industry should always be the decisive yardstick.

## Real return

The Board recommends a target return on capital of 20 per cent, equivalent, on certain assumptions to a real return on equity of 5.4 per cent. (This compares with a real return of 7.1 per cent in 1960-66 and 4.5 per cent in 1967-72.) It claims to be maintaining the principle of comparability because it thinks profits in industry are likely to rise to somewhere around the 20 per cent level over the next year or two. It is, moreover, as the Board points out, an essential element in the Government's industrial strategy that profits should be restored to adequate levels.

The Board may be too optimistic both about profit trends and about the industrial strategy. But it has performed a useful service in defining what a fair rate of profit might be in present conditions and in drawing attention to an aspect of industrial policy which does not receive as much attention from Ministers as it should. The Government's reaction to this report will show how far it accepts the need for industry in general, not just the defence contractors, to earn an adequate return in real terms.

## The problem of the profits in State industries

By COLIN JONES

AFTER THE outcry about the record profits announced a few weeks ago by some of the bigger nationalised industries, the chairman of these State concerns could hardly have been blamed if they had said they were as likely to be damned for making a profit as for making a loss, as many of them were doing until quite recently. For, as the chart indicates, the restoration of profitability in the nationalised sector is largely the result of the Government's decision some three years ago to abandon its erstwhile policy of price restraint. Other factors may have helped, such as two years of raw material restraint and in some sectors a revival in demand. But the decision to restore economic pricing has been the main reason.

This does not mean that public unease about the level of profits now being made is not justified. As the chart also shows, the major State industries together are now doing a little better even than in the late 1960s, at least in terms of the proportion of their overall capital requirements which they are able to finance from their own resources. Admittedly, self-financing ratios are not a true measure of profitability: they reflect changes in the level of new investment as well as in the level of profit. The underlying point, however, is that no one is really in a position to say just how much profit a State-owned concern ought to be making. To this extent, the public are right to be uneasy.

## New financial targets

Up to a point, this problem may be resolved when the Treasury brings out the new set of nationalised industry financial objectives, targets, and performance criteria upon which it has been working. These are expected to provide a framework which can be tailored to the circumstances of each industry. They are also expected to be in a somewhat more elaborate form than previous guidelines. The original idea, when financial targets were first set for the nationalised sector in the early 1960s, was that they should act both as a spur to efficiency and as a standard by which success or failure over a period of years could be judged. At the same time, Treasury Ministers saw the possibility of raising self-financing ratios in the nationalised sector and thus reducing the pressure—particularly strong from the electricity industry in those days—upon the National Loans Fund.

It was soon realised, however,

that a State industry which has a monopoly or possesses dominant market power may be able to raise its prices both to meet its financial target and to generate funds for investment. It does not matter whether the target is expressed as a percentage return on turnover or net assets, as a self-financing ratio, or—as has been done in ad hoc way in the last couple of years—as an annual cash limit upon expenditure. Whichever of these formulas is used, the emphasis is upon the wrong objective—upon the maximisation of profit rather than upon the minimisation of cost. It is only where no monopoly or dominant market power exists and market competition is the prime determinant both of prices and of investment requirements that financial targets had validity. Unfortunately, these situations were—and still are—relatively rare in the nationalised sector. Most State industries are in a position of competitive pressure in at

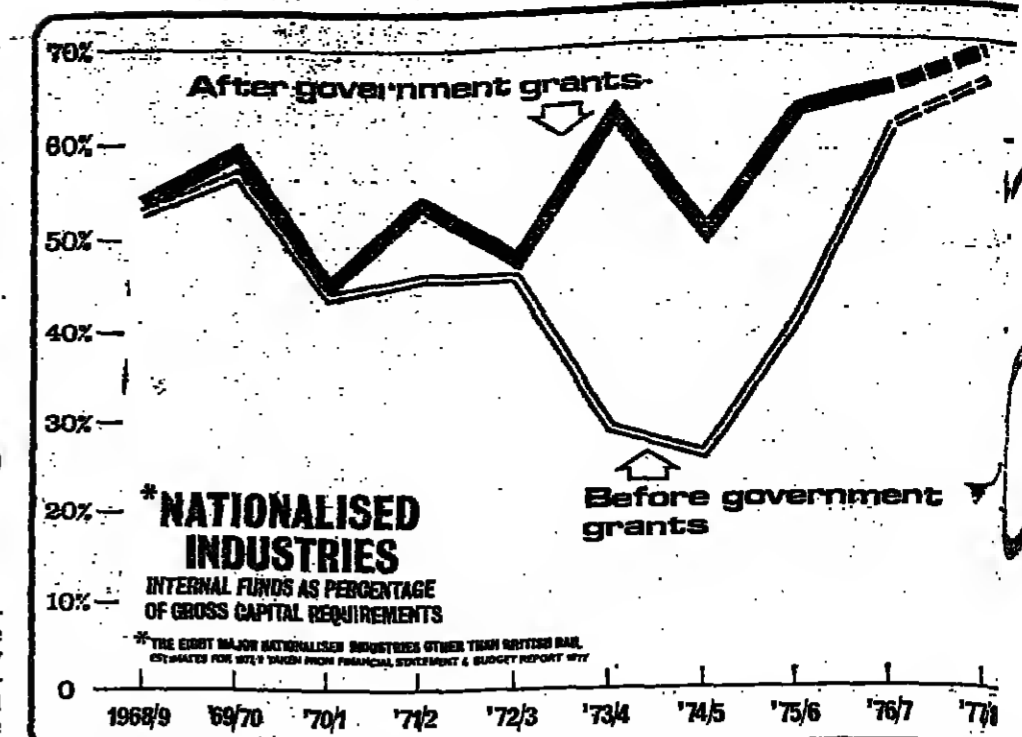
least some of their activities. The Committee purposes—that the Government should ensure an efficient allocation of resources and with it the nationalised sector is without foundation. Above all, some industries—like British Gas at the present time—may be tempted to press for a higher financial target in the hope that a higher self-financing ratio will largely free them from ministerial intervention. While the Government, for its part, may be tempted to pursue higher financial targets or higher prices (again in the example) in order to reduce the public sector borrowing requirement. From both sides the urge may be for profit maximisation at the expense both of the customer and of economic sense.



Sir Ronald McInnes, chairman of last year's NEDO study of Government-nationalised industry relations.

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To guard against monopolistic abuse, the Treasury's guidelines were modified some years ago. The broad idea was that nationalised industries should base their tariff structures upon long-run marginal costs (save where they had spare capacity, in which case short-run marginal costs would be more appropriate), apply a test rate of discount to their investment projects, and be required to attain various performance or efficiency criteria, as well as financial targets.



The Treasury's attempt to devise new ground rules has encountered one or two technical problems, such as how to apply current cost accounting to business concerns with an abnormally high ratio of debt financing. But this has not been the main problem. The trouble is that the whole exercise has been swept up by the much wider questions raised, first, by the Bullock and Lord reports on worker participation, and second, by last year's NEDO report on Government-nationalised industry relations.

Both sets of reports raised issues which are highly relevant. The Bullock and Lord concept of Boards composed of management and trade unionists to raise the level of management and worker participation, and the NEDO report's claim that structures and systems of control based upon Herbert Morrison's arm's length philosophy have failed because Ministers do not and cannot in practice keep their involvement within predetermined guidelines. The major State industries' position, too strategic, their market power or their role as large employers too politically sensitive, the lack of financial discipline comparable to that which operates in the private sector is too fundamental, and the time-scale within which politicians operate too short for Ministers to accept self-denying ordinances for more than a very limited period of time.

## More harness than horse

The present system, NEDO has suggested, has been structured as to emphasise consultation rather than the concerted approach to be found in the prevailing Continental system of representative Boards (including civil servants). The NEDO report acknowledged the case against trying to apply Continental practice here and proposed as a middle course a two-tier structure. At the top, policy Boards composed of senior executives, trade unionists, civil servants, and consumer representatives, and at the lower level, corporation Boards composed of the senior management charged with the day-to-day running of the business.

This proposal has been widely condemned both by the

State Boards themselves and within Whitehall. At best, it would add yet a third layer of decision making ("more harness than horse" has been one comment). At worst, the non-management members of the policy Board would have neither the authority, the knowledge, nor the time to achieve a true reconciliation of conflicting interests. Above all, the NEDO concept appears to under-rate the ease with which Ministers under pressure would override the decisions of any supervisory structure however carefully devised.

However, NEDO's comparison of Government-nationalised industry relations in Britain and on the Continent was useful in that it helped to underline two factors which distinguish the relationship here from the situation generally prevailing across the Channel. The first point is that Government relations with business in Britain, both in the public and private sector, tend to be more abrasive. There is an underlying lack of empathy; industrial policy tends to lack a coherent framework and an adequate analytical base; the relationship between industrial policy and macro-economic policies has only recently been actively appreciated; and, above all, there is no bipartisan consensus between alternative Governments as to the role and limits of State intervention in a market economy system.

The second factor is that, apart from a few State monopolies, State enterprises in a long where possible the monopolistic or semi-monopolistic situation on the Continent are largely confined to the public utilities which pose regulatory problems (irrespective of ownership). There is no "ring fence" concept of nationalisation, such as in the shipbuilding, aerospace, or (to a large extent) in steel in Britain. Close ministerial involvement and control is regarded as normal where State enterprises have dominant market power and there are permanent and independent institutions to check on their efficiency: whereas, market forces are generally accepted as adequate substitutes for ministerial control over enterprises operating in a fully competitive environment.

These contrasts point, perhaps, to three related conclusions. The first is that Britain should make a similar distinction between State enterprises functioning effectively,

in monopolistic and competitive situations by relying upon petition to stimulate efficiency in the latter sector as in the former. Secondly, we seek to widen the control as appropriate to Government acting as banker-cum-holder. Secondly, we seek to widen the control as appropriate to Government acting as banker-cum-holder. Secondly, we seek to widen the control as appropriate to Government acting as banker-cum-holder.

## Parliament scrutiny

Obviously, there is a technical and political what might be achieved by a "BP solution" in enterprises, not only public utility sector but the ring fence sector, position of all State-owned businesses. (This is a comment for separating it and telecommunications from the rest of the industry.) Finally, we should accept the inevitability of a specific provision in term ministerial intervention, first, devising a which bring these into clearer Parliamentary scrutiny and public ability and by, secondly, State enterprises in a long where possible the monopolistic or semi-monopolistic situation on the Continent are largely confined to the public utilities which pose regulatory problems (irrespective of ownership). There is no "ring fence" concept of nationalisation, such as in the shipbuilding, aerospace, or (to a large extent) in steel in Britain. Close ministerial involvement and control is regarded as normal where State enterprises have dominant market power and there are permanent and independent institutions to check on their efficiency: whereas, market forces are generally accepted as adequate substitutes for ministerial control over enterprises operating in a fully competitive environment.

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## MEN AND MATTERS

## In the bosom of the party

One may fairly say that an ideological cleavage has been caused at Blackpool by an item on the TUC agenda. When delegate Shirley Goodwin rises to deplore the wastage of one of the most important natural resources, there are some on the left who will detect a middle-class conspiracy at work.

The subject of Shirley's speech will be mothers' milk: the burden of her case, put on behalf of the 9,000-strong Health Visitors' Association, is that the government should start a campaign to encourage British mums to breastfeed. She will argue that Whitehall should at least match the promotion and advertising efforts of the baby milk powder industry, which has sales of £20m a year. You might fancy that this image of capitalism exploiting mothers and infants should strike a chord with the militants. But it is likely that TASS, Association 13 months ago, consumer advertising had effectively stopped. So how do they ward off their marketing? By giving away free samples nationwide to hospitals and clinics, then letting doctors and mothers decide. Free samples are also the mainstay of promotion by Ostermilk, made by the Glaxo group.

At an Ealing clinic I found delegate Goodwin doing a last turn of duty before taking the train to Liverpool. She is clearly as resolute as the Left-wingers. She says it is a "disgrace" that only about 5 per cent of mothers are still breastfeeding at three months. What about working women? There should be more flexibility over maternity benefits and facilities for mothers to breastfeed in factories and offices. On the class aspect, I did discover that middle-class wives are three



"63% ... do I have any advance on 63%"

times more likely than what Mrs. Goodwin called "so-called working-class mothers" to attempt breastfeeding. As for Shirley herself, she is an SRN with a university diploma and a tennis-club accent: there could be a lack of identity with the ladies of TASS.

In search of a little ideological light, I talked to Moira Cunningham, who was an FT correspondent in Moscow and raised a family there. It seems that the Kremlin has always found the problem pretty insoluble. Moreover, only last Thursday the Soviet Union handed out a £50m contract to three French companies and an American group for the building of an industrial complex to make baby foods.

## Hot stuff

British Steel was delighted to sell some sheet metal to a new customer in Austria and sent out a trial order. Three special coils of the steel were made at Port Talbot. On arrival at Rotterdam on route, a Dutch docker with a somewhat warped sense of humour wrote on the coils "RADIOAKTIF". The Austrian authorities and the customer would not go near the stuff until BSC had had it checked by Geiger counter, had given a written guarantee that no radio active materials were present—and had given an indemnity about the performance of the steel.

## Man and machine

The latest issue of Bankers' Magazine illuminates the surprise resignation last week of Barclays main Board director Charles Bain (Men and Matters, September 2). In his capacity as chairman of Barclays Mer-

chant Bank, Bain provides a penetrating study of the problems of being part of a clearing bank family. He says, inter alia, that "there is a danger that absorption by 'the machine' will, in due course, reduce the initiative and enthusiasm which are required to make a merchant bank successful." The magazine went to the printers, of course, well before Bain announced he was quitting Barclays.

## Bad news

Sweden's national team did well to come second to the United Kingdom in the European Management Championship this week-end. But although the Swedish players—Ernst Esso—finished only £200,000 behind the U.K.'s winning profit of £7.1m, they expect no publicity in the Swedish media for their efforts.

According to one of the papers, it is against the policy of Swedish journalists even to mention a contest in which the aim is to maximise profits. "For the European championship to be covered by Swedish journalists," added the player, "we would have to change it so that the winner was the team which squeezed the maximum subsidies out of the government."

## Name game

Oddest occasion during Jim Callaghan's trip to Germany later this week will be a party in Essen. Chancellor Helmut Schmidt and his wife Hannelore have invited all the men and women they can find called Helmut Schmidt or Hannelore Schmidt. After Blackpool, such light relief may be quite welcome.



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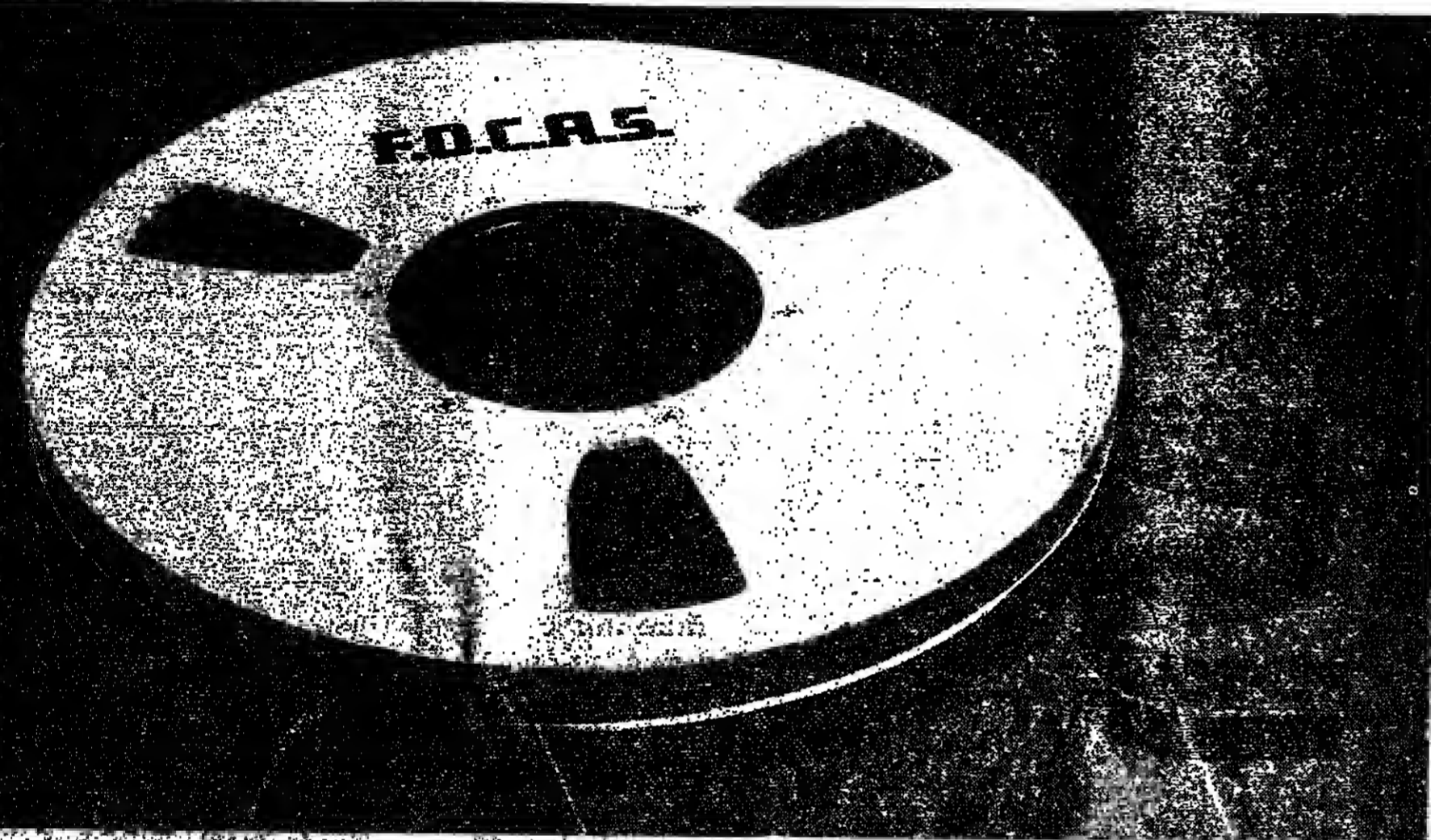
# FINANCIAL TIMES SURVEY

Monday, September 5, 1977

هناك امر لائق

## Commercial Vehicles

Although the market for commercial vehicles has been improving, this may owe more to unit replacement than new demand. Nonetheless, if the general economic recovery continues, so should commercial vehicle sales, and manufacturers are now turning their attention to long term market prospects.



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## COMMERCIAL VEHICLES II

## Sales rise but anxieties remain

THE ONE big cloud on the horizon of the British commercial vehicle industry at the moment is the fear that inflation will receive a new boost from the lack of a Phase Three wages agreement. A period of high interest rates and budgetary restrictions would stunt growth once again just as the industry is building up a fair head of steam. The anxiety is that manufacturers will be hit hard as they were in 1974 and 1975, when they suffered acutely from the dip in demand as company liquidity declined and their own prices rocketed upwards.

The main factor in the present rise in sales is probably the need for replacement of vehicles which have been given a longer than normal spell on the roads. During the slump the replacement cycle moved out of step as hard-pressed hauliers held off from new purchases. But a point comes when this cannot be staved off any longer.

At the same time, however, manufacturers believe that a small element of new sales has come back to the market with the recovery of hopes for industrial expansion. Given the still stagnant state of British industrial output, this feeling derives as much from hunch as from hard fact. But there is a clear feeling of optimism about prospects which could be dampened by a sudden upward lurch in wage inflation.

One important factor which commercial vehicle manufac-

turers are now having to consider in Europe is the prospect for overall expansion in the heavy commercial vehicle market during the next decade. Within this period a saturation point for heavy vehicles could well be reached. Even today, production of the heavyweight ranges is not much more than it was ten years ago, because the trend towards larger vehicles takes care of any growth in overall haulage demands. The vehicles, of course, become more complex and costly, with more added value as they grow more sophisticated to cope with the demand of carrying heavier loads. More materials go into them. But unit production stagnates.

This is by now a familiar phenomenon in the U.S., where by far the biggest market growth in recent years has come from the light commercial vehicle sector. Pickups, vans and motor caravans have taken sales from the car sector as second vehicles. By contrast, the heavier vehicle sector has grown scarcely at all over the last five years, while light vehicles have expanded their sales by about 1m. units.

So far, Europe has not followed the American example, although some analysts believe that it will do so in due course. But even if the van and pickup market does not take off to the same extent—European roads are probably less acceptable for the private use of these larger

vehicles—it is difficult to see rapid growth for heavier commercial vehicle sales. This partly explains the accelerating moves towards rationalisation which have overtaken the British and Continental manufacturers in the last ten years.

## Mergers

The mergers and takeovers which have occurred have already produced a European industry with much reduced range of marques compared with ten years ago. Vehicle producers have been forced by the lowering of tariff barriers in the EEC to consider the total market as one entity. This concept of a more integrated market has in turn forced manufacturers to regroup, both as a defensive measure against competitors from overseas and as a positive one to develop the muscle to attack export markets themselves. For small manufacturers the cost of building up overseas franchises is prohibitive unless they can concentrate on highly specialised sectors.

Thus in Germany commercial vehicle manufacturing is now clustered around three major manufacturers at the heavier end—Mercedes-Benz, MAN and Magirus Deutz—and Volk-AEC. The group today encompasses the old businesses of these two major manufacturers, along with Guy-Scammell and the Albion and Bath-Mercedes and its name gate trucks made in Scotland.

gradually abandoned. The other German manufacturers, like Faun and Kaelble concentrate on specialised products, along with two bus manufacturers, the Kassbohrer and Anwander.

In France, a major move towards rationalisation has come with the amalgamation of the Renault subsidiary Savim, and the major producer of heavier vehicles in the country, and Berliet, formerly a subsidiary of Citroën. Unic, the other sizeable producer of heavy vehicles, is already part of the Fiat-inspired Iveco group, so although the Savim-Berliet merger is still in its infancy, the main steps towards a streamlined industry seem to have been taken. Peugeot is the other big French producer, mainly in the light van ranges, along with Chrysler and Svan.

Domestic commercial vehicle production in Italy is dominated by Fiat, which has a virtual monopoly apart from a few light vehicles from Alfa Romeo. But in Britain, there is still a wide diversity of producers, despite the moves towards amalgamation which began in the mid 1960s. British Leyland, based on the former Leyland trucks company, has been the main catalyst in this development, setting its seal on its pre-dominance with the takeover of AEC. The group today encompasses the old businesses of these two major manufacturers, along with Guy-Scammell and the Albion and Bath-Mercedes and its name gate trucks made in Scotland.

Two other of the smaller U.K. producers, Seddon and Atkinson, have also come together, to be taken over in due course by International Harvester, the U.S.-based manufacturer which claims to be the biggest commercial vehicle company in the world. But ERF and Foden's still remain independent quoted companies, and British also boasts sizeable truck operations at Ford, Bedford (the Vauxhall subsidiary) and Chrysler. In addition, Dennis Motors, after its takeover by Hestair, is now making a strong comeback from near extinction with a range of new specialised products.

The effect of these moves towards bigger conglomerations of truck builders has been to increase the pressures to sell internationally. All markets in Europe have come under increasing attack from outside manufacturers in the last decade, partly because of the reduced tariffs and the extra incentive to sell overseas, and partly because customers have welcomed the diversity of choice which has been reduced by internal mergers and can

only be replaced by overseas and Volvo exported only about 600 vehicles to Germany between them (3,200 in the U.K.).

## Competitor

Probably the most successful proponents of this overseas sales drive have been the Scandinavian producers, which export about 80 per cent. of their vehicles. Mercedes is a close competitor, as also is DAF. All these companies have built up strong distribution networks throughout Europe. The French, Italians (in the shape of Fiat) and British companies have not put the same effort into making themselves into European organisations in this field, mainly, in the case of the British, because of the delay in entering the Common Market. But serious efforts are now beginning from the U.K. companies, with Ford, Bedford and latterly Leyland all beginning to build up distribution networks across the Continent. Germany to the rest of Europe. France and Italy suggest that in 1975 were reckoned at no more than 12,000 units (against 30,000 in the U.K.); and Spain by an average of about 7 per

cent. The key to British success in tackling these both at home and overseas is that with the market going through a massive of reorganisation and

reorganisation and a steady erosion of its share in the last five years its sales have continued in the last seven months new product is on the shelves of the Marathon due launched shortly and car with an entire range of new models in the year.

This will give the opportunity to enter a properly integrated constituent parts have been properly digested. Leyland achieves this through its increase heavy truck at its Lancashire plant 20,000 units a year, it manage to maintain its as one of the major players in Europe.

Terry Dodds  
Motor Industry Correspondent

## Japanese advance arouses criticism

TO-MORROW representatives of the Society of Motor Manufacturers and Traders will be meeting their Japanese counterparts to protest against the rising tide of Japanese exports to Britain.

This time, the object of their concern is not the car market but a closely related area of the business, the lighter end of the commercial vehicle market, including that covered by car-derived vans and pick-ups which, though not car-derived, compete head-on in the same sector.

The British industry's worries have been growing over the past two years, ever since an understanding on the sales of cars themselves in the U.K. was reached with the Japanese manufacturers. For once the Japanese industry had agreed to limit its car sales here it appeared almost straight away to look to light commercial vehicles to make up the sales growth it was voluntarily desisting elsewhere.

To an extent, it is probable that the challenge in this sector would have come anyway. For Japan is one of the world's major producers of commercial vehicles. And, because of the country's road system, most of

its output tends to be concentrated at the lighter end of the weight spectrum. Once Japan's cars had proved themselves there could never have been any doubt that this country would seek to extend its penetration of overseas motor vehicle markets. Indeed, in the U.S., where demand is very heavy, Japan already dominates a pick-up truck market in which the European industry had traditionally been a strong force.

## Dominance

In Britain, Japan is far from dominating the car-derived van and pick-up market. But the build-up in its sales has been very rapid indeed. In 1975, the Japanese were for the larger part of the year out of the market altogether. Toward its end, Datsun, the largest importer of cars into Britain, entered the fray. By the year's close, it had sold just 27 of its car-derived vans and pick-ups here, with 20 of them hitting British roads in December itself. That compared with overall imports of 7,205 vehicles over the 12 months and a total market of 71,674.

But in 1976, the story was very different. The total market fell to 70,613, yet imports rose to 10,233. And with Chrysler

France, the biggest importer, both for its technical specification, which would appear to put it into a gap left wide open by the other manufacturers of light commercial vehicles, and for its price, it portended a serious challenge to the British market.

Datsun brought in 3,506 car-derived vehicles, Honda spearheading its sales drive with a vehicle which is not actually car-derived but which is very much in the same sector, brought in 1,149 even though its first sales were not made until the end of July and the vehicle concerned, the TN 360 panel van and a related pick-up, was not formally launched until the autumn.

The Honda, one of the most significant vehicles at that show, has an overhead camshaft, a large aluminium alloy engine of 334 cc and is claimed to be able to use only one gallon of two-star petrol every 50 miles while employed on stop-start in town delivery work. Loading is at knee height while, on the van version, there is a pavement access side door as well as the conventional door at the rear. The engine and gearbox are in the middle of the body under the cargo area, thus optimising stability and weight distribution.

The Honda was significant for a number of reasons. It is a thoroughly conventional vehicle based on the car of the same designation, with a carrying capacity of 1,070 lbs and a cargo capacity of 47.5 cubic feet. But it, too, represented another demonstration of the Japanese producers' U.K. ambitions. And, sure enough, Toyota, virtually not on the market before, had sold 73 car-derived vehicles by the year's end (which is more, for example, than Citroën). In fact, the three Japanese manufacturers sold 4,738 car-derived vehicles between them last year against 1975's 27 from Datsun.

So far this year, the advance has continued. The market has again declined, with overall registrations against 749 a year earlier, while Toyota, with just its Mini and Marina-derived vehicles, but its sales last year totalled 27,047 compared with 31,851 in the previous 12 months. And, with production hobbled by the same problems as have been hitting its Japanese counterparts, its registrations of this year recorded another fall at 17,329 in January-July, 1976.

Next in the league table is Ford, with 20,042 new registrations of car-derived vehicles last year compared with 17,691 in 1975, an advance which, however, has been reversed so far in 1977, with a January-July total of 10,310 compared with 7,403 in the initial seven months of last year. Against these totals, the position of the importers, with 7,205 sales in 1975, 10,233 in 1976, and 6,095 in the first seven months of this year, may not appear so formidable. After all, the total import penetration is way below that seen in the car market, but in the time before the U.K. industry began to take the overseas threat seriously. And when it did, it was arguably too late—certainly there is no sign of the influx of imports beginning to lessen.

Almost all the importers contributed to the rise: Chrysler France, whose range is sold alongside Chrysler U.K. vehicles and is complementary to them (for Chrysler's British subsidiary not in the car sales at 40,287 in the seven months to the end of July 2,446 against 2,033 12 months earlier, while Renault brought in 4,965 in the same period of 1976. Yet imports have been rising again: they stood at 6,095 in the most damage to the domestic industry.

In all, they took around 6 per cent. of the total market (a penetration level they achieved with larger vans, too, selling 3,041 of the total of 49,259 larger panel (non car-derived) vans first registered during the seven months) with 2,587 sales. Honda, without a single vehicle sold in January-July, 1976, saw 1,412 of its small vans and pick-ups hit British roads in the corresponding period this year, making it the second largest importer after Chrysler France. Datsun's more conventional car-based range notched up 882 registrations against 749 a year earlier, while Toyota, with just its Mini and Marina-derived vehicles, but its sales last year totalled 27,047 compared with 31,851 in the previous 12 months. And, with production hobbled by the same problems as have been hitting its Japanese counterparts, its registrations of this year recorded another fall at 17,329 in January-July, 1976.

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## Hopes

At the same time, Honda has been making no secret of its plans to step up sales of its TN 360 to reach a total of over 2,000 by the end of the year, while Datsun, too, has been planning strong hopes on its 1,000 cc Cherry van, selling in Britain only since the beginning of the year and competing against the Leyland Mini van as well as the Renault light vans. In the first five months of the year, just under 1,300 Cherry vans were shipped to Britain although actual sales, according to the Society of Motor Manufacturers and Traders figures, have not yet reached that level. All this has been happening not only at a time when the overall market has been falling slightly but in the wake of a period when it fell very heavily indeed. For last year's total sales figure of 70,613 compares

with one of over 100,000 in 1972.

Then came the abolition of purchase tax (which did not apply to vans) and the substitution of value added tax (which rather than waiting till the vehicle ownership hopes of particular have become those unable to afford a car significant in the market but prepared to settle for a van as a vehicle with near-car comfort and convenience. The market was cut by around a quarter virtually at a stroke.

And since then has been an almost steady decline as far as the U.K. producers are concerned. British Leyland is the dominant manufacturer with one sale in the seven months to the end of July, 1976, achieved 293 in the later period. This was not the only bad news for the British industry: the early part of the year also saw news of another planned offensive by a Japanese manufacturer, Mitsubishi Motors, one of the top six commercial vehicle producers in the world but best known here for its Colt cars. The company is expected to launch a light truck here this autumn with heavier vehicles following and car-derived commercials possibly not far away. Eventually, its vehicles could well be assembled here or on the Continent.

## Initiative

The current SMMT undertaking with the Japanese, aimed at achieving a similar sort of voluntary Japanese export restraint, are being limited to 10 per cent. of the market. The industry is arguing domestic manufacturers disrupted and claim the sales build-up political and trade-sure for formal growth, a development says, "would be in interest. The argument is, yet, that said, the fact that Japan is to do able to sell so many commercial vehicles because of falling domestic manufacturers their suppliers. A story that just seen at Joss with its widespread production through motor industry, and sentences for British in particular, is very disruptive as any importer could do vehicle like the Honda is grabbing a retail share of the market in no domestic market really able to cope on any terms of demanding that Honda ing so hard to sell."

So, in the car-derived British industry is expressing its alarm at the trend to greater importation has become.

With the Japanese accounting for about a third of all imports of car-derived similar vehicles (and a little more if the relationship between France and Chrysler taken into account) as leading the field as far as sales of light vehicles are concerned, surprising that they, too, have been hit for action.

David

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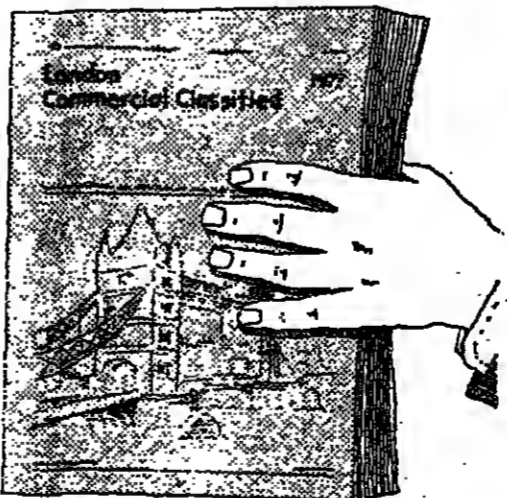
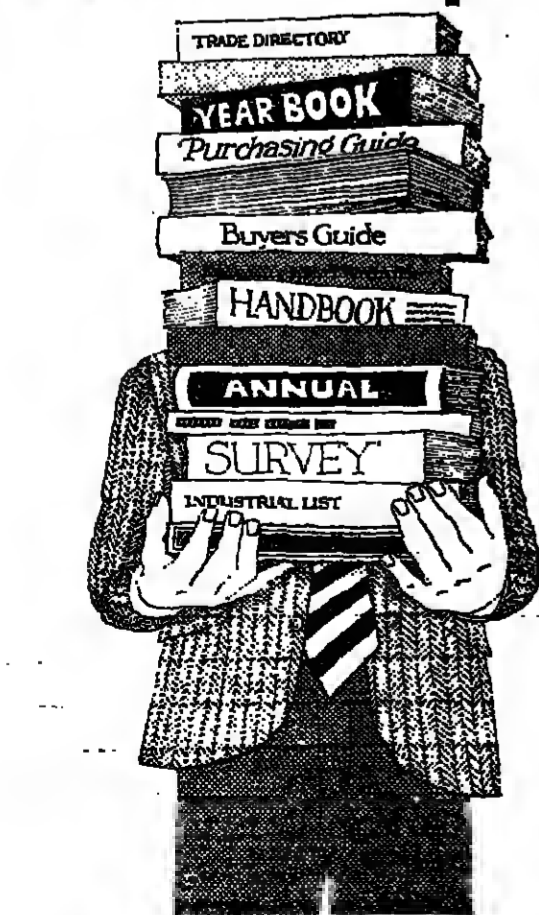
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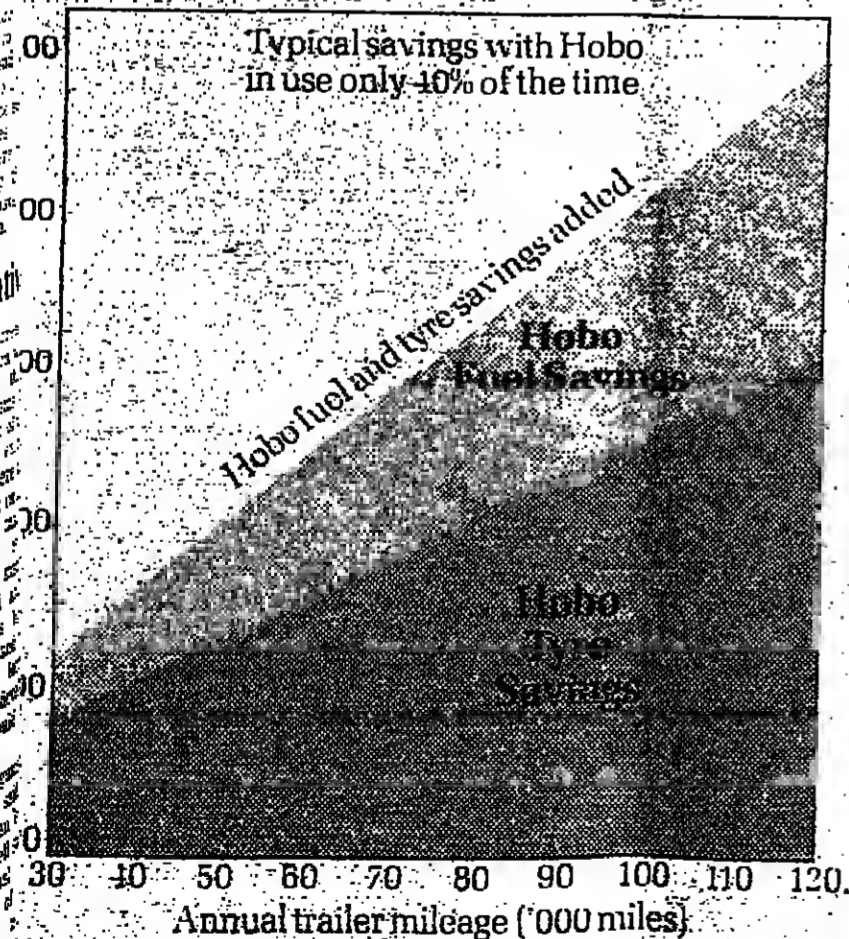


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# York Hobo. Lift your wheels and lower your costs.



Last year people were calling Hobo the greatest idea since the Freightmaster. This year it's an established success. When it was launched last April we forecasted savings of £280 per year per trailer. This year, typical savings are raised to around £330 inflation and the Budget road fuel increases.



**Hobo. Only from York.** Anyone still needs reminding. Hobo is the patented lifting axle trailer suspension that cuts the cost of fuel and on a tandem semi trailer by lifting the trailing axle clear of the ground when carrying light loads, or no load at all. With Hobo the trailer adapts to its load. And an overload protection valve automatically lifts the leading axle when the trailer reaches its single axle limit.

**Where and how you save with Hobo.**  
Our market survey showed that the average semi trailer only needed both axles on the ground for 55% of the time. For own-account fleets it can be even less. The remaining 45% of the time, the trailer needed only one axle on the road.  
From these findings we developed Hobo to cut costs in two major areas.  
The first and most obvious saving is on tyres. The Goodyear Tyre Co estimated that a 30% reduction in tyre wear is likely if Hobo is used just 45% of the time. And like all York suspensions, tyre wear in tandem form is reduced by providing fully adjustable radius rods to ensure accurate axle alignment.  
The other area of saving is in fuel. Obviously there is more drag and scrub with a tandem trailer than with a single axle. By raising your axle, you raise your miles per gallon. According to the tests carried out at the Cranfield Institute of Technology, your mpg goes up about 4%.  
Add these savings on tyres and fuel together and a saving of £330 per year is typical.



**Better braking.**  
Hobo's benefits don't stop with tyres and fuel. Its design incorporates a balance beam which reduces hop, resulting in shorter, safer stopping distances.  
Mike Cunningham from 'Motor Transport' road tested the Hobo and reported on its brake performance: "It was the non reaction built into the suspension under braking that most impressed me...we have established braking distances from full pressure stop at 40 mph that shows the Hobo suspension provides better and softer braking without undue axle hop."  
There is a mean increase of braking efficiency from 59% to 68% on surface brake application attributable to the non re-active design of the suspension under braking - axle hop is virtually eliminated.  
And Hobo is fail safe. Should there be any damage to the Hobo air system, the second axle lowers and the trailer runs in its normal tandem mode.

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Your next York trailer can be supplied with Hobo or you can have your existing vehicles adapted at any of the York factory branches.

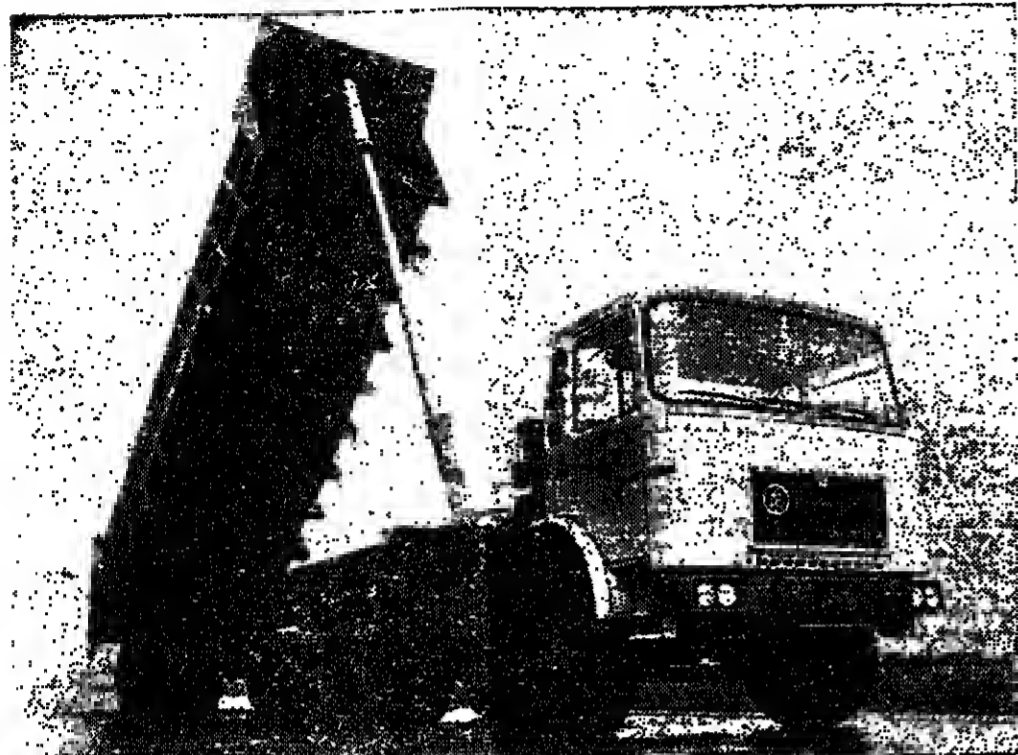
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## COMMERCIAL VEHICLES IV

# Potential threat to export markets



A new MAN dump truck bound for the Middle East.

COMMERCIAL VEHICLE exports have been one of the most important growth points in the European motor industry during the last two years. Without these buoyant overseas markets, principally in the Middle East and Africa, the industry in Britain and on the Continent would have been in a much sorer situation than it finds itself today. Exports have managed to keep the Leyland Truck and Bus group afloat and contributing healthy profits, and on the Continent were responsible for the way in which Mercedes managed to sail through the depression of the mid-1970s without one lay-off in its factories, and with a continuous record of growth.

Many of the traditional overseas markets are likely to remain heavy buyers of European products for some time, simply because vehicles are needed quickly to exploit the natural wealth on which their own growth depends. Specialised vehicles, for example, such as giant earth movers and contracting equipment, can only be made in sophisticated industrial societies which can bring a wide variety of engineering skills to the point, for heavy trucks, which

are in great demand as the only means of bulk goods transfer, but which at present can only be acquired from more developed countries.

Gradually, however, the importing countries are determined to take over more and more of these manufacturing functions. This has already happened, or is in the process of happening, in the car industry, where several developing countries are establishing local assembly facilities. In the first place, they import most of the vehicle and put it together in plants designed and equipped by the vehicle exporter; then gradually they make more and more of the product with the eventual ambition of designing their own equipment and building it from locally made parts. In South Korea, which is in the process of establishing a car and truck industry, the Hyundai company has even jumped the assembly step by proceeding straight towards its own design of a car under the direction of Western management.

The concern of Western countries to retain a stake in the developing world is now turning, therefore, to projects which give manufacturers from both areas a continuing interest in any individual project. A good example of this in the commercial vehicle field is the new Leyland Rover plant which was established by British Leyland last year in Kenya. Ownership is split between the British company, with 45 per cent, and the Kenyan Government and other local interests with 55 per cent. Leyland also has a longer-term interest through a renewable 10 year management contract, and the ability to supply some parts which cannot be made locally.

The Kenyan project, an example of the way Leyland intends to go in Africa, stands in sharp contrast to the old exporting and distribution organisations run in the days of colonialism, and is a different approach from that adopted by some motor companies which tend to insist on retaining ownership of any manufacturing project. General Motors, for example, has in the past always been reluctant to cede control in its overseas operations. But a similar policy to Leyland's has been adopted by some other big commercial vehicle companies such as Mercedes which has a relatively large business in Iran, and the two Scandinavian producers, Volvo and Scania, which are highly active in South America.

Leyland is in a peculiarly healthy position to pursue this policy because of the virtually unique characteristics of the Leyland-Rover. Customers cannot buy such a versatile vehicle elsewhere, despite the growing number of imitations. It is also in great demand for police and military use, which brings the company into the realm of public policy in many states and therefore helps attract attention and interest in Government circles. On the back of these Leyland-Rover projects, Leyland therefore hopes to be able to develop its larger commercial vehicle interests as well.

codes, which has been an extremely aggressive exporter in the Middle East, have begun to notice the impact of the Japanese in world markets. Japanese medium-weight trucks are now forging into the Arab states, and into East Africa. In the Far East they dominate the market today, except in India where Leyland is well established alongside a now-nationalised former Mercedes company. And in the developing world in general, Leyland is now having to face an increasing challenge to its Land-Rover business from the Toyota Land-Cruiser, a less rugged vehicle which is nevertheless in much more free supply.

In the Gulf states and the Far East, the Japanese products stand out for their competitive prices. Three-axle tipper trucks by Nissan, the Datsun car manufacturer, for instance, tend to undercut European products by up to 50 per cent. These prices are particularly damaging to Swedish or West German vehicles, which have very high wage rates built into their costings, and which are exporting behind highly rated currencies.

U.K. companies are at less of a disadvantage on both these counts, although in the Gulf states both British Leyland and Ford have been crippled by their presence on the Arab boycott list (from which Leyland has recently been struck off). Overall, U.K. commercial vehicle exports have continued to go up this year, registering a 14 per cent increase, at \$328m, on the figure achieved in the first six months of 1976.

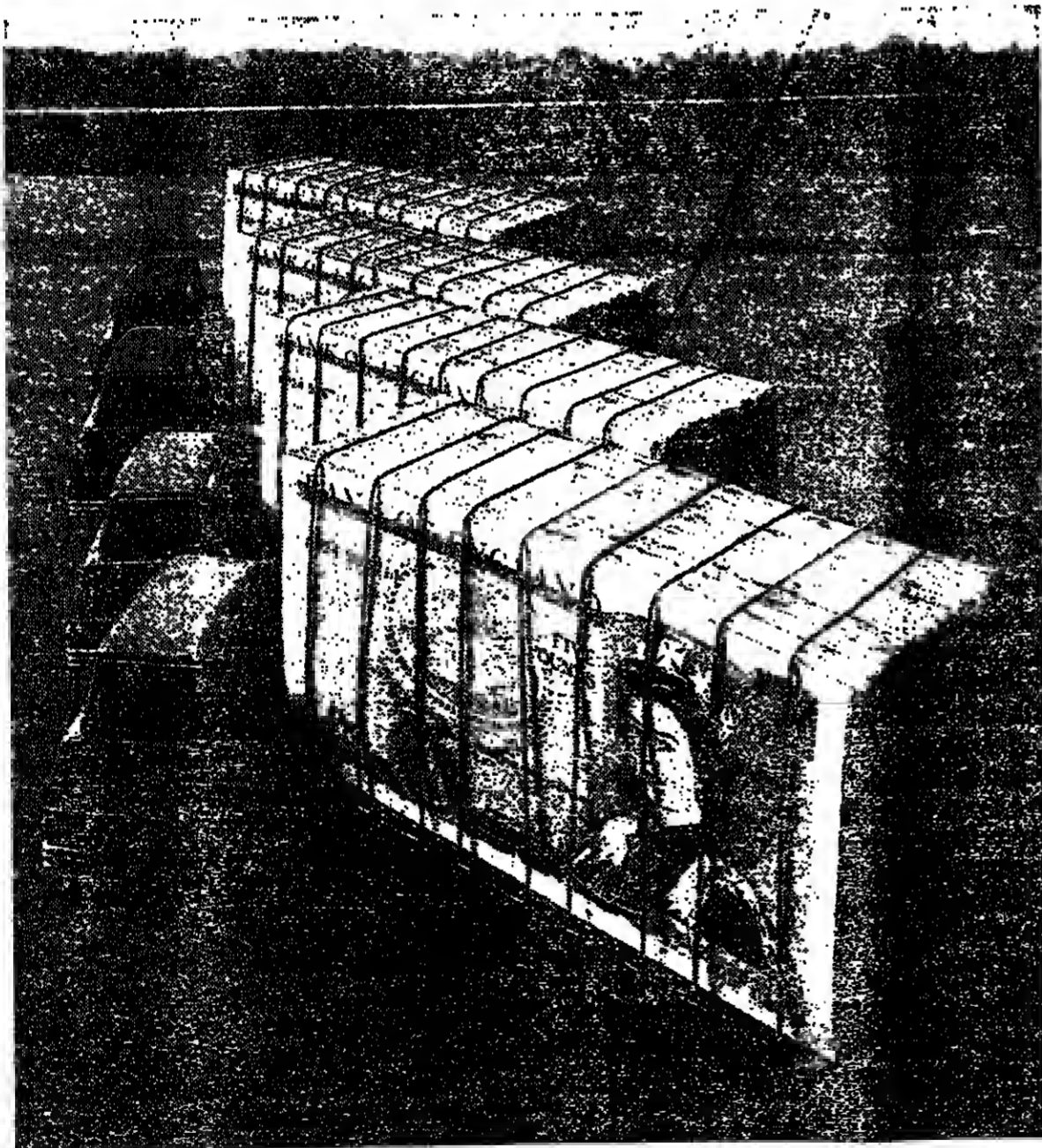
## Network

Ford's exports, based on similar historical network contacts, have in recent years been directed also to the near, where the Transit made a big impact. Leyland is now following initiative with the Shery but this is still considered by the Transit, particularly in the diesel, which has made a good of progress with Com customers. Ford exports little over 30,000 Transits a year, as well as 14,000 derived vans. It was a biggest exporter of more than 3.5 tonnes, 22,400 units overseas. Leyland's 22,200 and Bedford's 22,300. But Leyland's largest overall export is 81,700 units last year. Ford's 72,400 by virtue of high sales of the Land Rover.

Whether Britain can in its strong position, in commercial vehicle, during the next few years depend on the reorganisation now being carried out quite a large front in industry. In the developing it will come under pressure from new manufacturers in the Far East, and in it has to try and build up some stiff opposition. It is no doubt that the has read the message need to get new products to the road and to an aggressive policy before the foreign or swallow their home or

Terry Dod

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## Pattern

The pattern of European truck and bus exports still tends to follow the lines laid down in colonial days. The French, for example, do good business in the North Africa, along with the Italians. Britain is strong in black Africa. But the outstanding exporters are the Swedes, who export about 90 per cent of all the commercial vehicles they make, with a wide network of customers both in Europe and in South America.

Recently, however, the two Swedish producers and Mer-

cedes exports of its medium weight vans have also

# Changing pattern in imports

WHEN VOLVO and Scania last year, accounting for about 2.7 per cent of total sales of a little over 1m. units. This figure compares with about 1,000 vehicles a decade ago, and shows a very sharp build-up on the 13,000 Japanese commercial vehicles registered in 1975. At the moment, these figures are small, but the pace of increase is, to many European manufacturers, dangerously rapid, suggesting that the Japanese industry could easily repeat the success it achieved with motor cars.

The main threats at the moment come from the direction of Japan, which already has a well-developed commercial vehicle industry, and the Soviet bloc, which is in the process of developing one. In the longer term, Volvo and Scania were making it plain that there will be competition from other quarters as well. Brazil and Iran, for example, already have quite well developed motor sectors, and it can be only a matter of time before they begin to move into exports: indeed, the appointment of Mr. George Turnbull, the former British Leyland managing director to a consultancy post at Iran National was partly prompted by a desire to build up exports.

The Japanese expansion in Europe, however, is the one which is particularly worrying European producers at present. Based on smaller vehicles, there is a longer-term threat that it will be expanded into larger vehicle sectors as well, thus cutting into an area of the motor industry which has been tightly controlled within Europe itself, and which has provided a strong base for exports to the rest of the world.

Japanese importers sold about 27,500 vehicles in Europe

Most of these Japanese vehicle sales were in the light car-derived van and pickup category and the medium van sector of vehicles of less than 3.5 tonnes gross weight. These are the lower price items in the industry, so the impact on the balance of payments is not too damaging at present. But even so, it is noticeable how deep the Japanese penetration has gone. For example, in Finland it is reckoned that the Japanese manufacturers have now captured almost 20 per cent of the commercial vehicle market, and in Norway almost 17 per cent. Even in Denmark it has more than 14 per cent, and in the Irish Republic, where Hino has a local assembly operation, it has more than 9 per cent.

The U.K. is the latest Western European country to come under pressure from the Japanese commercial vehicle importers. The Japanese have switched their attention in this area following the informal understanding that car imports to Britain would be limited to the little under 10 per cent of the market: instead of cars, the dealers can now sell small commercial vehicles—some, like the

Datsun Sunny, virtual except for one or two panels in place of maintain their margin even achieve a little of a natural diversification Japanese manufacture vans and pickups take more transportation in cars, and the British shown itself receptive products.

The figures for the first months of this year just how far this Japanese has progressed. period this bloc of factors—including Honda, Mazda and Toyota—turned 6 per cent of derived van and pickup with a total of 2,587. In the same period registered a similar 6 in the medium weight up to 3.5 tons which registered some 3,041. This was a significant improvement on the figure of about 4 per year. Few of the European ports are doing any as well as the Japanese manufacturers.

The growth of the Japanese is unlikely to end at either. Colt, the Mitsubishi subsidiary which has established in the U.K. in the last two years, announced its intention to diversify into the vehicle sector and will try to build itself a presence in this field appears possible to already decided to bring two light vehicle planning to introduce a new ground for the company has made no the fact that it would expand into even

CONTINUED ON NEXT PAGE.

## COMMERCIAL VEHICLES V

مركبات تجارية

## Leasing is on the increase

...an increase in the number of vehicles leased in the UK. The number of vehicles leased in the UK in 1976 was 1,200, compared with 1,000 in 1975. This represents an increase of 20 per cent. The number of vehicles leased in the UK in 1977 is expected to be 1,500, compared with 1,200 in 1976. This represents an increase of 25 per cent. The number of vehicles leased in the UK in 1978 is expected to be 1,800, compared with 1,500 in 1977. This represents an increase of 20 per cent. The number of vehicles leased in the UK in 1979 is expected to be 2,100, compared with 1,800 in 1978. This represents an increase of 17 per cent. The number of vehicles leased in the UK in 1980 is expected to be 2,400, compared with 2,100 in 1979. This represents an increase of 14 per cent. The number of vehicles leased in the UK in 1981 is expected to be 2,700, compared with 2,400 in 1980. This represents an increase of 13 per cent. The number of vehicles leased in the UK in 1982 is expected to be 3,000, compared with 2,700 in 1981. This represents an increase of 11 per cent. The number of vehicles leased in the UK in 1983 is expected to be 3,300, compared with 3,000 in 1982. This represents an increase of 10 per cent. The number of vehicles leased in the UK in 1984 is expected to be 3,600, compared with 3,300 in 1983. This represents an increase of 9 per cent. The number of vehicles leased in the UK in 1985 is expected to be 3,900, compared with 3,600 in 1984. This represents an increase of 8 per cent. The number of vehicles leased in the UK in 1986 is expected to be 4,200, compared with 3,900 in 1985. This represents an increase of 8 per cent. The number of vehicles leased in the UK in 1987 is expected to be 4,500, compared with 4,200 in 1986. This represents an increase of 7 per cent. The number of vehicles leased in the UK in 1988 is expected to be 4,800, compared with 4,500 in 1987. This represents an increase of 6 per cent. The number of vehicles leased in the UK in 1989 is expected to be 5,100, compared with 4,800 in 1988. This represents an increase of 6 per cent. The number of vehicles leased in the UK in 1990 is expected to be 5,400, compared with 5,100 in 1989. This represents an increase of 6 per cent. The number of vehicles leased in the UK in 1991 is expected to be 5,700, compared with 5,400 in 1990. This represents an increase of 6 per cent. The number of vehicles leased in the UK in 1992 is expected to be 6,000, compared with 5,700 in 1991. This represents an increase of 5 per cent. The number of vehicles leased in the UK in 1993 is expected to be 6,300, compared with 6,000 in 1992. This represents an increase of 5 per cent. The number of vehicles leased in the UK in 1994 is expected to be 6,600, compared with 6,300 in 1993. This represents an increase of 5 per cent. The number of vehicles leased in the UK in 1995 is expected to be 6,900, compared with 6,600 in 1994. This represents an increase of 4 per cent. The number of vehicles leased in the UK in 1996 is expected to be 7,200, compared with 6,900 in 1995. This represents an increase of 4 per cent. The number of vehicles leased in the UK in 1997 is expected to be 7,500, compared with 7,200 in 1996. This represents an increase of 4 per cent. The number of vehicles leased in the UK in 1998 is expected to be 7,800, compared with 7,500 in 1997. This represents an increase of 4 per cent. The number of vehicles leased in the UK in 1999 is expected to be 8,100, compared with 7,800 in 1998. This represents an increase of 4 per cent. The number of vehicles leased in the UK in 2000 is expected to be 8,400, compared with 8,100 in 1999. This represents an increase of 4 per cent. The number of vehicles leased in the UK in 2001 is expected to be 8,700, compared with 8,400 in 2000. This represents an increase of 3 per cent. The number of vehicles leased in the UK in 2002 is expected to be 9,000, compared with 8,700 in 2001. This represents an increase of 3 per cent. The number of vehicles leased in the UK in 2003 is expected to be 9,300, compared with 9,000 in 2002. This represents an increase of 3 per cent. The number of vehicles leased in the UK in 2004 is expected to be 9,600, compared with 9,300 in 2003. This represents an increase of 3 per cent. The number of vehicles leased in the UK in 2005 is expected to be 9,900, compared with 9,600 in 2004. This represents an increase of 3 per cent. The number of vehicles leased in the UK in 2006 is expected to be 10,200, compared with 9,900 in 2005. This represents an increase of 3 per cent. The number of vehicles leased in the UK in 2007 is expected to be 10,500, compared with 10,200 in 2006. This represents an increase of 3 per cent. The number of vehicles leased in the UK in 2008 is expected to be 10,800, compared with 10,500 in 2007. This represents an increase of 3 per cent. The number of vehicles leased in the UK in 2009 is expected to be 11,100, compared with 10,800 in 2008. This represents an increase of 3 per cent. The number of vehicles leased in the UK in 2010 is expected to be 11,400, compared with 11,100 in 2009. This represents an increase of 3 per cent. The number of vehicles leased in the UK in 2011 is expected to be 11,700, compared with 11,400 in 2010. This represents an increase of 3 per cent. The number of vehicles leased in the UK in 2012 is expected to be 12,000, compared with 11,700 in 2011. This represents an increase of 3 per cent. The number of vehicles leased in the UK in 2013 is expected to be 12,300, compared with 12,000 in 2012. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2014 is expected to be 12,600, compared with 12,300 in 2013. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2015 is expected to be 12,900, compared with 12,600 in 2014. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2016 is expected to be 13,200, compared with 12,900 in 2015. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2017 is expected to be 13,500, compared with 13,200 in 2016. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2018 is expected to be 13,800, compared with 13,500 in 2017. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2019 is expected to be 14,100, compared with 13,800 in 2018. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2020 is expected to be 14,400, compared with 14,100 in 2019. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2021 is expected to be 14,700, compared with 14,400 in 2020. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2022 is expected to be 15,000, compared with 14,700 in 2021. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2023 is expected to be 15,300, compared with 15,000 in 2022. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2024 is expected to be 15,600, compared with 15,300 in 2023. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2025 is expected to be 15,900, compared with 15,600 in 2024. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2026 is expected to be 16,200, compared with 15,900 in 2025. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2027 is expected to be 16,500, compared with 16,200 in 2026. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2028 is expected to be 16,800, compared with 16,500 in 2027. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2029 is expected to be 17,100, compared with 16,800 in 2028. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2030 is expected to be 17,400, compared with 17,100 in 2029. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2031 is expected to be 17,700, compared with 17,400 in 2030. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2032 is expected to be 18,000, compared with 17,700 in 2031. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2033 is expected to be 18,300, compared with 18,000 in 2032. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2034 is expected to be 18,600, compared with 18,300 in 2033. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2035 is expected to be 18,900, compared with 18,600 in 2034. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2036 is expected to be 19,200, compared with 18,900 in 2035. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2037 is expected to be 19,500, compared with 19,200 in 2036. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2038 is expected to be 19,800, compared with 19,500 in 2037. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2039 is expected to be 20,100, compared with 19,800 in 2038. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2040 is expected to be 20,400, compared with 20,100 in 2039. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2041 is expected to be 20,700, compared with 20,400 in 2040. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2042 is expected to be 21,000, compared with 20,700 in 2041. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2043 is expected to be 21,300, compared with 21,000 in 2042. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2044 is expected to be 21,600, compared with 21,300 in 2043. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2045 is expected to be 21,900, compared with 21,600 in 2044. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2046 is expected to be 22,200, compared with 21,900 in 2045. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2047 is expected to be 22,500, compared with 22,200 in 2046. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2048 is expected to be 22,800, compared with 22,500 in 2047. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2049 is expected to be 23,100, compared with 22,800 in 2048. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2050 is expected to be 23,400, compared with 23,100 in 2049. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2051 is expected to be 23,700, compared with 23,400 in 2050. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2052 is expected to be 24,000, compared with 23,700 in 2051. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2053 is expected to be 24,300, compared with 24,000 in 2052. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2054 is expected to be 24,600, compared with 24,300 in 2053. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2055 is expected to be 24,900, compared with 24,600 in 2054. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2056 is expected to be 25,200, compared with 24,900 in 2055. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2057 is expected to be 25,500, compared with 25,200 in 2056. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2058 is expected to be 25,800, compared with 25,500 in 2057. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2059 is expected to be 26,100, compared with 25,800 in 2058. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2060 is expected to be 26,400, compared with 26,100 in 2059. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2061 is expected to be 26,700, compared with 26,400 in 2060. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2062 is expected to be 27,000, compared with 26,700 in 2061. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2063 is expected to be 27,300, compared with 27,000 in 2062. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2064 is expected to be 27,600, compared with 27,300 in 2063. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2065 is expected to be 27,900, compared with 27,600 in 2064. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2066 is expected to be 28,200, compared with 27,900 in 2065. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2067 is expected to be 28,500, compared with 28,200 in 2066. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2068 is expected to be 28,800, compared with 28,500 in 2067. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2069 is expected to be 29,100, compared with 28,800 in 2068. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2070 is expected to be 29,400, compared with 29,100 in 2069. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2071 is expected to be 29,700, compared with 29,400 in 2070. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2072 is expected to be 30,000, compared with 29,700 in 2071. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2073 is expected to be 30,300, compared with 30,000 in 2072. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2074 is expected to be 30,600, compared with 30,300 in 2073. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2075 is expected to be 30,900, compared with 30,600 in 2074. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2076 is expected to be 31,200, compared with 30,900 in 2075. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2077 is expected to be 31,500, compared with 31,200 in 2076. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2078 is expected to be 31,800, compared with 31,500 in 2077. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2079 is expected to be 32,100, compared with 31,800 in 2078. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2080 is expected to be 32,400, compared with 32,100 in 2079. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2081 is expected to be 32,700, compared with 32,400 in 2080. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2082 is expected to be 33,000, compared with 32,700 in 2081. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2083 is expected to be 33,300, compared with 33,000 in 2082. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2084 is expected to be 33,600, compared with 33,300 in 2083. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2085 is expected to be 33,900, compared with 33,600 in 2084. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2086 is expected to be 34,200, compared with 33,900 in 2085. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2087 is expected to be 34,500, compared with 34,200 in 2086. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2088 is expected to be 34,800, compared with 34,500 in 2087. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2089 is expected to be 35,100, compared with 34,800 in 2088. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2090 is expected to be 35,400, compared with 35,100 in 2089. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2091 is expected to be 35,700, compared with 35,400 in 2090. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2092 is expected to be 36,000, compared with 35,700 in 2091. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2093 is expected to be 36,300, compared with 36,000 in 2092. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2094 is expected to be 36,600, compared with 36,300 in 2093. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2095 is expected to be 36,900, compared with 36,600 in 2094. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2096 is expected to be 37,200, compared with 36,900 in 2095. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2097 is expected to be 37,500, compared with 37,200 in 2096. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2098 is expected to be 37,800, compared with 37,500 in 2097. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2099 is expected to be 38,100, compared with 37,800 in 2098. This represents an increase of 2 per cent. The number of vehicles leased in the UK in 2100 is expected to be 38,400, compared with 38,100 in 2099. This represents an increase of 2 per cent.

ACTIONS early in the year, but there would be a substantial increase in commercial leasing towards November and in the spring. The path has been made, unexpectedly, even by the Government since 1976, when the Control of Leasing Order was relaxed, dropped to 117, and that vehicle operators pay ten months of rentals at the start of a lease contract.

During this second half of the year, there will undoubtedly be a further increase in leasing, up their publicity drive. The leasing companies are the legal owners of the vehicles concerned, and even at the end of the lease term (which ranges from three to as much as seven years, but averaging five, depending on the life of the vehicle) the asset cannot be sold to the user. The leasing company would then be absorbing its tax allowances.

There is no essential hardship in this, since the resale price of the vehicle can be passed on to the lessee by way of rental rebates. On the question of outgoing and incoming cash, lease finance has undoubtedly attracted the attention of the public, and in many cases the shortage of profits (which reduces capital allowance capacity in any case), mean that lines of credit are strained, and probably best preserved for contingencies, or mainline business if the vehicles are simply there to transport the company product.

Leases are not accounted for under the capital expenditure column, but as a trading expense, accountants are immersed in a debate as to the good and the bad of this, but

for the foreseeable future there will be no changes. What you are getting, theoretically, is 100 per cent. finance, but normally a three-month rental in advance is required, and reasonable.

As a trading expense, the rentals are tax-allowable. So, in summary, leasing is a medium-term finance facility providing the use of a vehicle for business, together with the normal tax incentives to invest whether you have tax capacity or not, while available capital is preserved for other things. The fact that the lessee does not own the vehicle does not affect the choice of vehicle or its use—the leasing company looks on it as an investment for the lessee to use.

## Payments

Rental payments need not be regular amounts at regular intervals. They can be tailored to suit trade fluctuations, with light rentals in slow months and heavier rentals in others; front-end or back-end payments can be arranged; there can be what Lombard North Central calls a "terminal pause" or rental holiday related to earlier payments or expected resale price. The obligation to insure, incidentally, lies with the lessee. And in practically all cases there is an option to renew the lease at the end of the primary lease term, for peppercorn rentals.

Having thus painted a picture which appears to knock all other forms of finance into the shade, it is time to sound a word of warning. It is necessary to do homework properly and ensure that lease finance is competitive with commercial lending rates, and what is required for the occasion, good

lessors will not insist that leasing is a financial panacea, and as often as not will feel happier about their own security if the company has mixed its finance portfolio with other forms of vehicle acquisition. If a company is in good taxable profit, it may well be cheaper and more desirable to choose straightforward bank finance.

The Control of Leasing Order was more restrictive for motor cars than commercial vehicles, but the eradication of the rigid front-end lump payment in rents came about after some years of representations from such bodies as the British Vehicle Rental and Leasing Association (BVRLA) and the Equipment Leasing Association (ELA). Collation of vehicle leasing figures is comparatively recent, and no one claims to have the full picture. The ELA's members recorded £59m. worth of business in commercial vehicles and railway rolling stock in 1976; the BVRLA published more complex figures for 80 per cent. of its members representing 115,000 vehicles, to which was added an intelligent guess for the remaining 20 per cent., representing 8,000 to 9,000 vehicles.

The BVRLA rental fleet had grown proportionally smaller than the leasing fleet. Some 58 per cent. of all members' vehicles were on lease last year compared to 52 per cent. in 1975, and the rental fleet dropped from 47 per cent. in 1975 to 41 per cent. last year. There are many theories as to why this was so, but it appears to be the trend across the board. With the leasing companies now gearing up for a concerted effort in the commercial vehicle finance world, the proportion of leased to owned and rented vehicles seems bound to increase.

Robert Hawkins  
Editor, *Leasing Digest*

## Imports

CONTINUED FROM PREVIOUS PAGE

weights in due course, possibly backed by contacts at diplomatic level, indicating that too many Japanese imports could have a disruptive effect on the British industry.

The first sign of any serious intent by Eastern European countries to develop their commercial vehicle exports to the West has come with the launch of the Romo middle weight truck from Romania in Britain. This vehicle, based on a MAN licence, was introduced last year and has achieved 127 sales so far this year. This is not a big total, leaving the company firmly towards the bottom of the importers' sector for trucks of over 3.5 tonnes, but it provides a base for expansion. As with Eastern European cars, the Roman truck is highly competitive on price.

So far, the rest of the Eastern European countries have been virtually

European truck industry is at no transport problems in ship development stage. The pinz the vehicles from the area, huge Karma River development their manufacturing industries project in Russia, for example, have a low cost structure, and has run into all kinds of trouble their products are developing and is well behind schedule, and towards Western standards of there is not sufficient capacity in sophistication. This is why in Cnmecon to set up a big export some Western countries, par drive for several years. Another icularly Germany, Comecon is project in Poland, whereby regarded as a greater long-term General Motors was to have more sober judgment is that it truck which would be backed by Eastern Bloc to develop the Western (mainly Bedford) necessary expertise, and that technology, and supported by Western (mainly Bedford) technology, and supported by sales of the vehicle into Western markets, appears to have foundered for the time being on cost grounds. There are hints, however, that this might be revived under the direction of another Western manufacturer. The Eastern European companies clearly have the potential to establish significant exports to Europe. There are virtually

Terry Dodsworth

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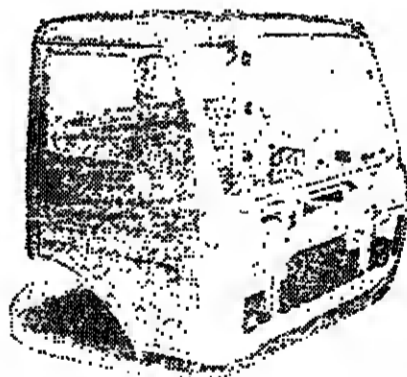
All this should be comforting to know as you send your drivers out to help you make a profit on the road.

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## COMMERCIAL VEHICLES VI

# Developments in engine design

IT WOULD not have been surprising if Mr. William Rodgers, the Transport Secretary, had emerged from his six months' presidency of the EEC Council of Ministers this summer with his faith in the excellence of the Community shaken.

Having set out with what he now describes as a speech of visionary dimensions to the European Parliament, it was not long before he was being snubbed for lack of regard for the "true" European constitution by the French and generally educated about the real pace of change in Brussels.

None of his relatively modest aims were met—even those in what he had taken to be uncontroversial areas such as regulations for approving whole vehicles rather than constituent parts—and he ended his presidency as he began it, with the threat of court action against Britain for its failure to enforce European law on the fitting of tachographs into heavy vehicles.

Mr. Rodgers denies, however, that his experience of the Community at its most uninspiring has diminished his enthusiasm. "I simply realise that it will take longer for member states to move from entrenched positions towards discussion of real transport problems on a broader plane," he says.

Many others in the transport industries are less optimistic. It has been a source of comment that attendance by British industry representatives at the endless round of committee procedures in Brussels and Luxembourg has fallen off in the last year and some in the industry bluntly state that they feel they have wasted enough of their energy leaning shoulders against the ramp of the Brussels elephant.

Pro-macketeers like Mr. Rodgers take the view that it is simply unfortunate that in the field of transport, most of the business to date has involved Britain in rear-guard actions to

resist uncomfortable and in some cases economically harmful provisions of the Treaty of Rome. He believes that at the other side of this undignified wheeling and dealing lies the opportunity for progress and mutual gain.

## Provisions

In the meantime, though he wishes the British civil service was more adept at the crude haggling by committee which is the daily bread of Brussels and insists that he is committed to winning the best possible deal at the end of the day on the key issues on the mind of the industry—the length of the driving day and quota permits for British hauliers to cross certain European boundaries.

The most urgent tussle concerns drivers' hours and Mr. Rodgers believes a compromise package will be ready for signature by the time the Council of Ministers meets next month. He hopes that by then the French will have withdrawn their objections to a British proposal designed, effectively, to stagger the implementation of the rules over three years from next January.

But even if this is achieved—and many in the industry doubt it—there is unprecedented alarm about the effect of this social regulation upon Britain's bus industry. Hauliers too have warned that it will cost them about £400m, a year in reduced productivity—although these figures are disputed by some sources. Sir Daniel Pettit, chairman of the National Freight Corporation, has said, interestingly, that the large companies within his organisation would, because of their nationwide depot facilities, face few problems and could even gain business at the expense of the smaller operators when the shorter working day comes in.

The National Bus Company, however, says it has case studies to prove that the regulations will mean it employing between 10 and 20 per cent more staff at a cost of £40m, a year as well as worsening services in some areas.

Mr. Denis Quin, director general of the Confederation of British Road Passenger Transport, which speaks for coach and stage carriage operators, says the total cost will be over £80m, a year. On behalf of its members, the Confederation is already seeking a Government commitment to offset this loss with compensation—a substantial request in view of the fact that the Government has only recently agreed to restore its support for local bus services to £150m, a year.

The key item in the drivers' hours package so far as the bus operators are concerned is the definition of the working week. British operators currently use the fixed Sunday to Saturday week, but under the EEC rules, a rolling week would be instituted which it is argued, would destroy flexible working patterns under which British bus drivers are able to work eight-day stretches and (of particular importance to coach companies) cut rest days to one a fortnight in summer and take time in lieu during quiet winter months. On top of this, schedules would be brought under further pressure by the lopping of 1½ hours from the continuous driving limit (to four hours) and the limitation of the driving day to eight hours (instead of eight and a half, theoretically, 70).

Implementation of the social regulation will probably be the sharpest blow to British commercial transport resulting from EEC policy to date, but it comes at a time when there is nagging dissatisfaction on many fronts. Not least of these is the business of quotas or permits

which British hauliers need in order to enter most European countries. Although the Department of Transport continues to work hard at bilateral negotiations, there is not much hope of significantly extending present limits, and the waiting lists of hauliers for permits to countries such as Germany, France and Italy seem certain to grow. The hoped-for expansion of the EEC multilateral quota system has not taken place (British hauliers have 272 permits under the present agreement) and meanwhile, cynics in the transport industry are enjoying the fact that more rapid progress on permits seems to be being achieved with Middle East states than with our EEC partners.

## Significance

Two other issues of potentially great significance for commercial transport remain in limbo. Mr. Rodgers is speculatively inactive on the question of implementing an EEC regulation requiring compulsory use of tachographs in all heavy vehicles—some observers expect infringement proceedings to be inaugurated by Brussels this autumn—and there is no sign of action on lorry weights.

Although apparently sympathetic to the commercial case for raising the limit on gross vehicle weights in the U.K. from 32 tons to 40 tons, Mr. Rodgers judges the environmental issues too sensitive to permit action at this stage. His resolve over the environmental aspects can only have been stiffened by the forthright opposition to heavier lorries from the Liberals. In the absence of a co-ordinated EEC approach, the inevitable fragmentation at national level has occurred, with maxima varying from 26 tons on some Swiss roads to 46 tons for certain Dutch vehicles. Such fragmentation makes life progressively more difficult for commercial vehicle designers.

But perhaps the issue which best characterises European transport politics is that of baulage tariffs. Here we have a system of bracket tariffs, providing a manual of prices which must be adhered to within 23 per cent, and which, by almost general admission, is ignored everywhere except in Germany. The Commission is now engaged in the traditionally lengthy process of looking at an alternative system of reference tariffs (which would be voluntary, with hauliers simply required to explain the economics of any severe undercutting in order to prevent unfair subsidisation). Britain's position on this highly embroiled negotiation appears to be just to go on talking because it, like most of the EEC members, would really prefer to have not direct tariff control at all.

So the conundrum of Brussels is drawn out, leaving the British haulier counting his quotas and his costs. But it is not true to say that all the effects of EEC regulations are bad for everyone in the industry and the operator who adapts to change can easily find himself tapping a new market.

A good example here is the British Road Services' approach to the onset of new laws requiring certain foodstuffs, such as

meat pies, to be refrigerated vehicles. BRS, as a sole distributor, has been able to step in and expand its contract hire fleet to one operator put in the blows of bureaucracy.

Peter C.

# EEC rules still in contention

IT IS FAIRLY obvious that the requirements in materials, design and equipment to make an engine capable of working for 500,000 miles with minimum maintenance are quite different from those needed for a light-weight engine in a van or car that will be consigned to the scrap heap after 100,000 miles. Nor, almost certainly, need a diesel engine for a car be as robust in certain components as an engine to be put into a light truck, although they are of basically the same design. Further variations are introduced if the engine is to be used for industrial purposes or to drive a boat. And still further complications are introduced by the necessity for meeting differing environmental legislation in world markets.

The problems that every engine maker faces these days are so formidable and the cost of finding solutions so great—£1m. a year spent on research plus perhaps more for development—is by no means out of the way at major establishments—that more and more use is being made of Government and university facilities, customers and suppliers of fuel injection equipment, crankshafts, and other vital components are collaborating in joint research programmes; and even rival engine makers are grumping together on advanced engine projects, sharing the costs and the results.

Whereas in the past research and development have perhaps concentrated on durability, noise and/or pollution reduction and fuel economy, engines these days have to be fine-tuned to applications and to weight, pollution, noise, and various other legislation applying to the markets in which the engines (in trucks, tractors, factories, and so on) are to operate. The oil crisis of 1973 concentrated everyone's minds wonderfully on fuel conservation, particularly in the U.S., where imports are around half total consumption. But this kind of concentration within a comparatively narrow field tended to leave out of account other and equally important aspects of energy conservation.

## Needs

It is greatly to the credit of young engineers facing the difficult problems posed that many of them see a vital part of their role through ecological glasses. "If only the politicians who make the legislation had our kind of engineering knowledge they would appreciate very much better the probable results of their decisions," said one design engineer. "They are sometimes not at all what they envisaged." Another dealing with the problems of meeting legislation is convinced that emission control in the U.S. has gone beyond the cost-benefit ratio. "And," he added, "the Environmental Protection Agency has a singular disregard for industrial lead times." Certainly Europe is baying much more



Leyland's Sutor four-berth caravan.

wide-ranging discussions in formulating and implementing legislation.

Nevertheless, the general and specific needs to make better use of energy and reduce pollution are taking engine builders and component suppliers into advanced technologies involving, for instance, laser beams for measuring the movement of fuel particles. The atomic energy research establishment at Harwell, under a programme funded by the Mechanical Engineering and Machine Tools Requirements Board, has embarked on an internal combustion engine project (ICE) with Perkins Engines (which helped to initiate it), British Leyland, Rolls-Royce Motors, CAV (the Lucas diesel injection subsidiary) and others on the advisory panel.

A technique for measuring the speed and movement of particles with laser beams, called laser doppler anemometry, and optical sizing techniques are being adapted in the air and fuel motion and mixing of the inlet manifold of a petrol engine, and also the air motion during induction and compression strokes of a diesel engine. Raman scattering techniques are used to measure the temperature and concentration of fuel vapour, oxygen and combustion products. The results of this joint effort will be made more widely known in due course: in the meantime the participants, as in other similar projects, will have the advantage of having a more intimate knowledge of the problems and possible solutions than competitive establishments.

Another more down to earth

project, but still using highly sophisticated techniques, is that devoted to a better understanding of the deflections and stresses in crankshafts, crankcases and bearings. This is being done with the assistance of the National Engineering Laboratory, and the result will be to provide engine designers with a series of computer programmes that will enable designers to allow more exactly for the interaction of engine components and the real loadings they produce.

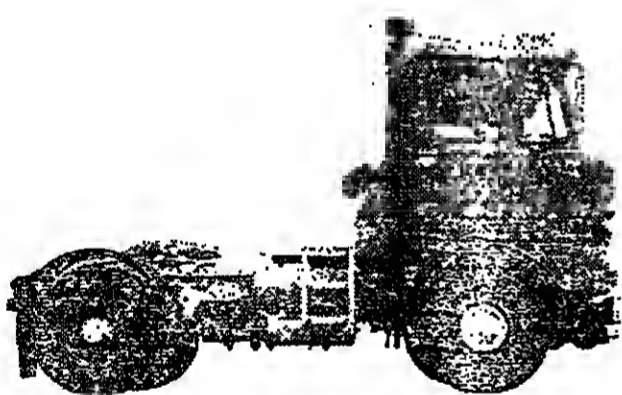
These are just two examples of the way in which the boundaries of knowledge are being pushed outwards, so that future generations of engines will be at least as competitive, if not more competitive, than those being offered by thriving overseas rivals in Japan and Europe. Among the more important other research work being done is that into determining what standard of oil diesel engines will accept. The quality of fuel oil in Europe is high. As time goes on, and oil reserves become depleted, quality levels will almost certainly come down to coarser cuts. For the designers this inevitably means a greater demand on diesel technology to make use of them efficiently.

The unprecedented concentration of resources in manpower, weight, high level development in research and materials is rapidly leading to the position where mathematical formulae can be used to design an engine for specific purposes from a clean sheet of paper. The most fundamental single factor affecting a whole range of parameters is the duty vehicles worldwide.

## Progress

There are still a few things to be licked, but steady progress is being made towards the full development of the materials, fuel, and the best means by which can be produced with full emissions and five quietness. Part of the engine will meet. Once this has been achieved, other factors like design work are direct impact on development progress. "There is a designer's need," a designer using materials for

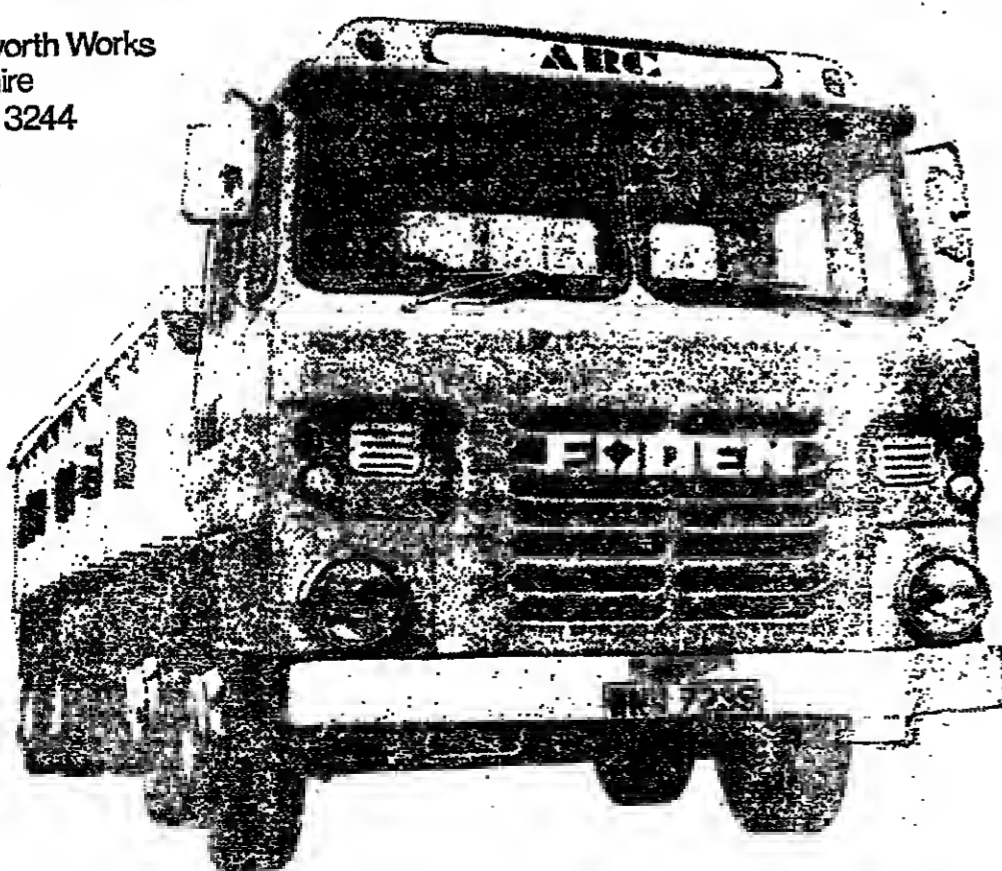
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مكتبة الجليل

# Promising outlook for light vans

TRANS of up to 3.5 tonnes now produces more than 100,000 units of the Transit a year, the majority being made at its Southampton plant and designed as a quite different product from the car. It is capable of being licensed as a car licence, there is an extremely important role in the industry. It is also grounds for belief that it could be the one of its growth areas, in the light of the fact that the Transit has been the success in the U.S. and it is in fact behind the innovation of product development in this area.

The component has reached a peak within the last few years with the launch of new Volkswagens—the new Mercedes—the new Leyland Sherpa. The Leyland Sherpa, the first of about 40,000 units in the first place, is a very significant venture in the so-called van market. It is then it took over the old Leyland-Henschel concern.

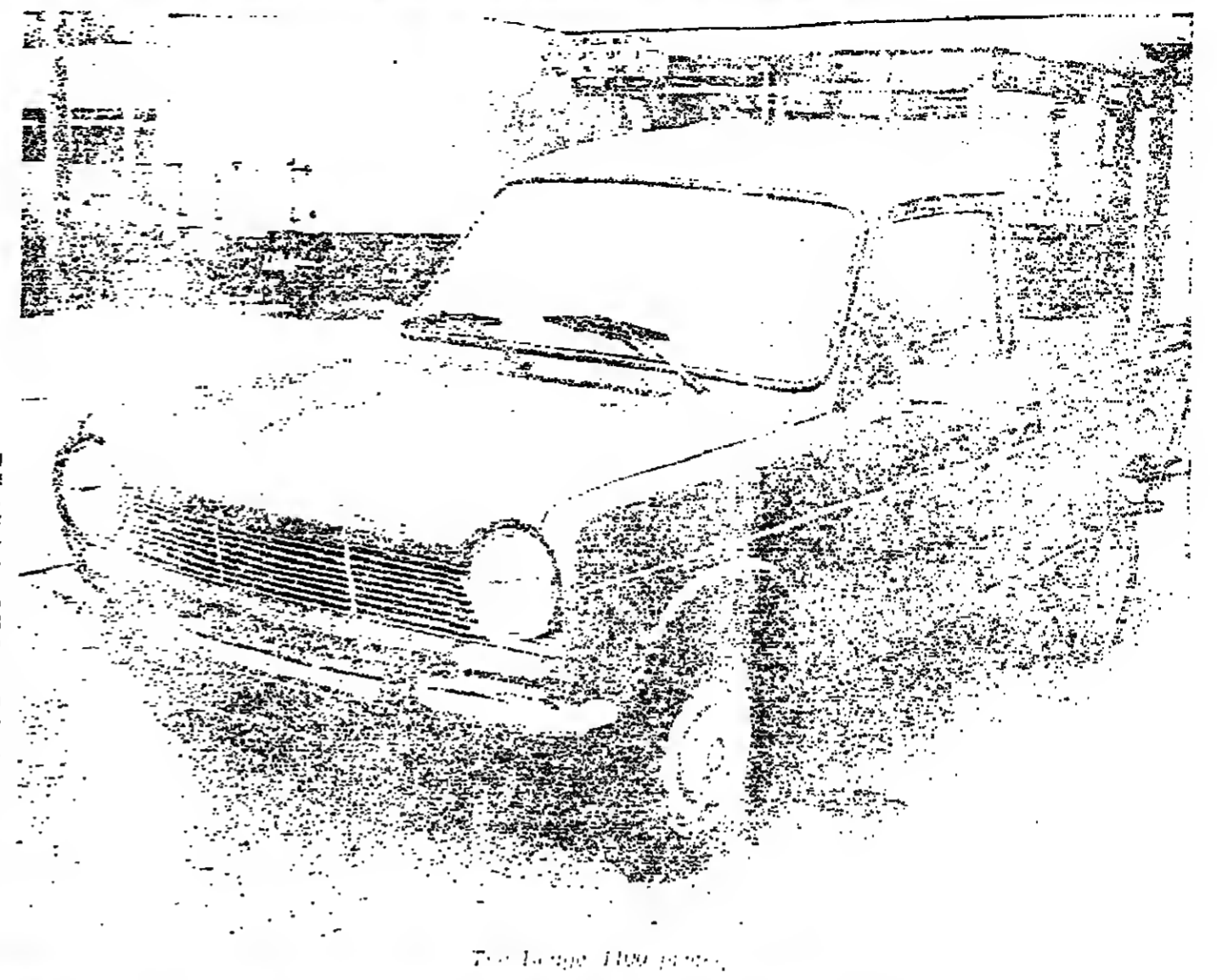
The new vehicle is the first designed by the German company which has concentrated its efforts in the last decade on heavier weight ranges. It is a new effort to challenge the mass car producers like Volkswagen which have made this part of the commercial vehicle market their own. Mercedes will undoubtedly develop marketing of the vehicle on a European scale as part of its drive to establish a pan-European presence, though at present the main focus is going into the contest with VW in Germany itself.

Similar new vans are expected within the not-too-distant future from Fiat, which is working on a new diesel engine in collaboration with Alfa Romeo, the newly-formed Berlet in combine in France. The contribution could be particularly significant, since so far the French market in this has remained peculiarly dualistic. It would be surprising if the new Government commercial vehicle legislation did not try both to the French domestic market and to develop a product which would take the French drive into other European markets. Savim, a subsidiary of Renault, is beginning to show the same interest in developing a European presence in the car group itself.

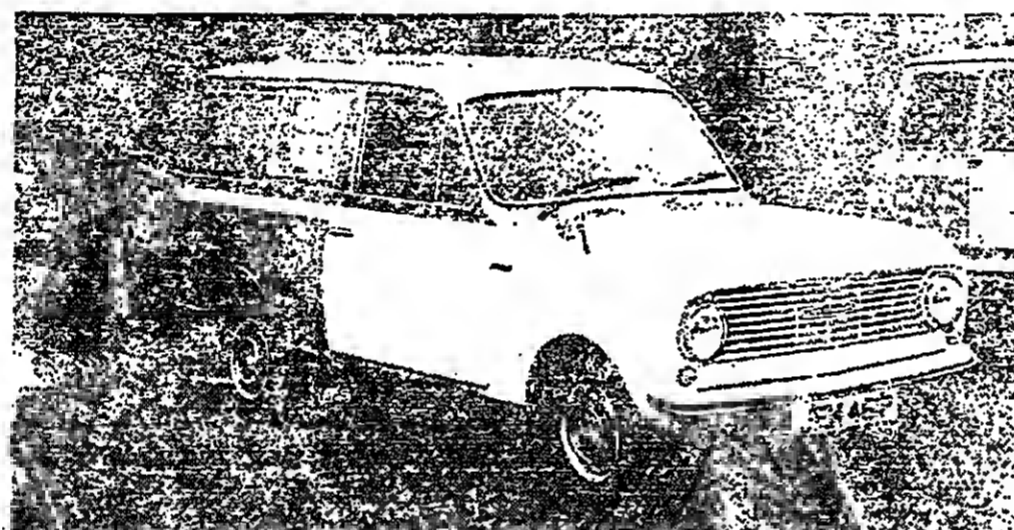
At the same time, Ford has started to come back with new product development in order to maintain its position as the dominant producer of light vans. This is a position the American-owned company has established for itself with much of the Transit 12 years ago. Designed to have drive characteristics to a feature aimed at appealing to customers who had only experience of driving cars, the Transit made an immediate impact in Britain and has since carved out a high profile in the Continental market.

used, a large number of businesses and their more acceptable. At the same time, they have proved an ideal motor vehicle base, because they are easier to manoeuvre into the average suburban driveway.

On the other hand, analysts have noticed a gradual drift towards the larger cube capacity vans in this sector, and it is significant that both Mercedes and Volkswagen have shifted towards water vehicles at their latest developments. At the moment, the 50 per cent of the Bedford CF van on the road would be in the same way as Volkswagen with both the old and new engines. The power and the new, larger, 1.7 litre engine, which starts at 28 tonnes, and goes up beyond the normal 3.5 tonnes, break point in this sector over the next few years.



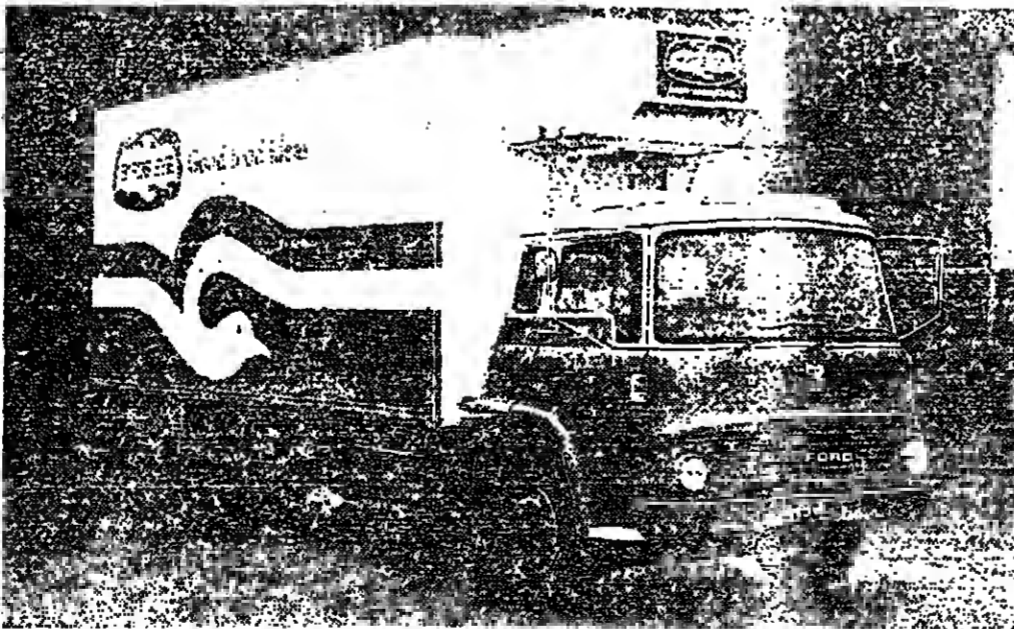
## THE BUSY MAN'S GUIDE TO THE COMPLETE FLEET.



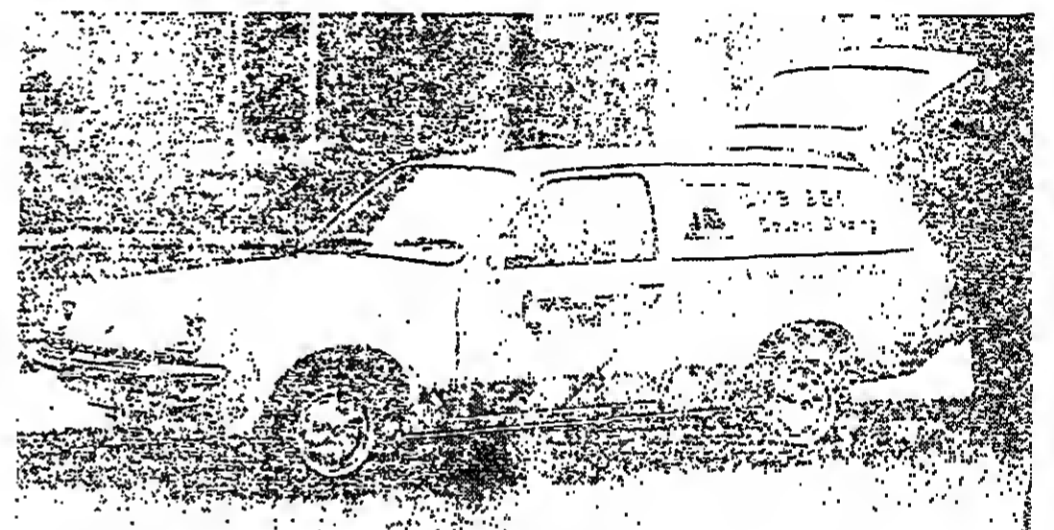
HA. Practical shape (88 cu. ft. cargo volume). Firm to handle with big fleets. Low initial cost. Two models.



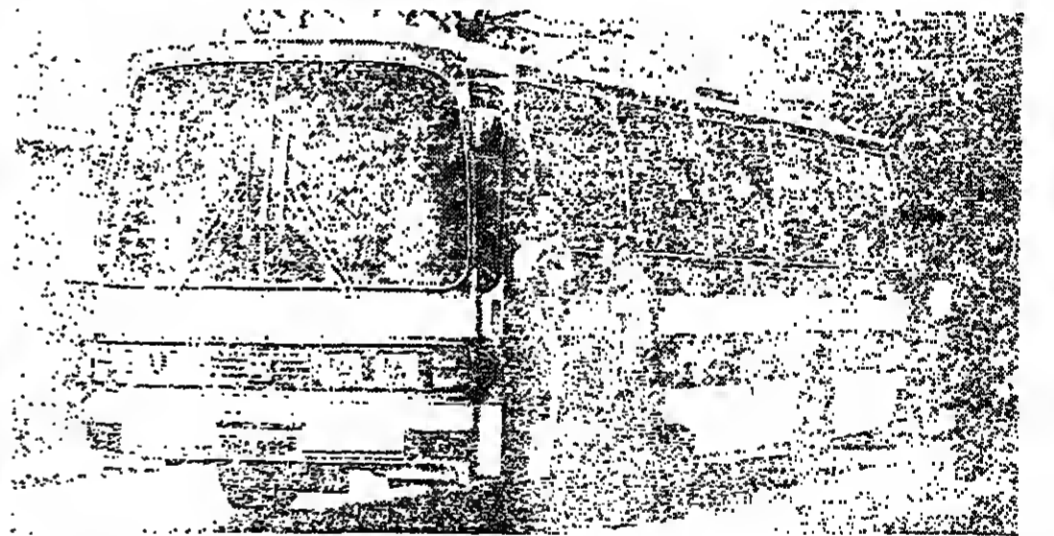
CF. Whole catalogue of recent improvements. New option of well-proven 2064 cc GM diesel. New high-specification cab.



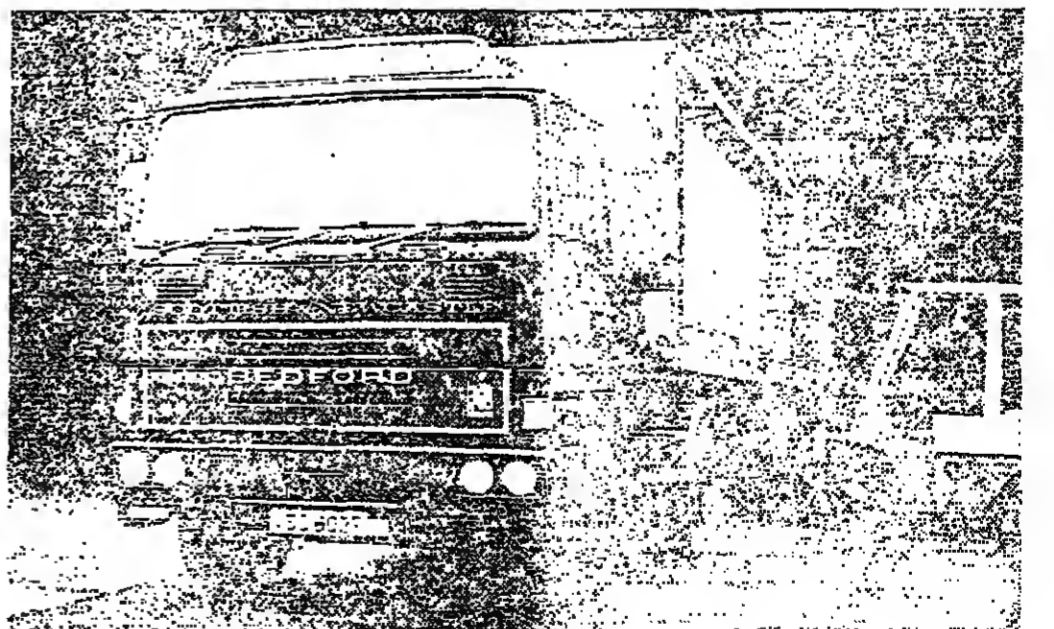
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## ules

CONTINUED FROM PREVIOUS PAGE

id only about 1 per cent. The hold of Volkswagen to introduce diesel engine Golf into production is to influence the market. The diesel engine's advantage, though one would expect the spin off more to affect light commercial vehicles, in which diesel is already growing at 16 per cent. per annum. The possibilities for cross-fertilisation, is the decision by market Granadas with Peugeot diesel engines, is tackling the smaller engine market more actively.

One is encapsulated in the Volvo TD 100B, a large six cylinder. This is a sample where the compression ratio is reduced from 15.5:1 to 12.5:1. This is a turbine to be run at high boost levels, and

where this device is used compression ratios of 3:1 replace a more usual 2:1, providing more power for a given engine weight. Perkins Engines, on the other hand, have chosen an alternative route of interposing an air charge cooler to pull down the temperature from around 150°C to 100°C, thereby avoiding the need to alter the compression ratio to keep engine temperatures down. Since fuel consumption, always important, is now a more significant factor than power output, turbo-charging 4-stroke engines is a generally acceptable compromise. Further away are new types of engine, and perhaps specially stratified charge engines on which a lot of work is being done at European establishments. So far, however, Honda is the only one to have used it in production vehicles — it is the (petrol) power unit of the Civic, on sale in some export markets like the U.S. but not yet in the U.K.

Ian Hargreaves

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## COMMERCIAL VEHICLES VIII

# Closer links being forged

ALTHOUGH SAAB-SCANIA has abruptly called off its proposed merger to Volvo the pattern of closer links in Europe's truck manufacturers continues with the revelation last week that Volkswagen and Maschinenfabrik Augsburg Nuernberg (MAN) have signed a co-operation agreement to produce a new range of six to nine ton trucks.

This follows over nine months of negotiations and the first three models are expected by the end of 1980. VW will build the cabs, rear axles and gearboxes at its Hanover plant, while MAN will assemble the chassis, front axles, brakes and superstructures at its Salzgitter plant.

The new models will carry the names of both manufacturers and will be marketed through their separate distribution chains, emphasising that this is a co-operative venture, not a merger.

The failure of the Volvo-Saab-Scania deal may be as much to do with the separate successes of their truck units—would they have held both their markets?—as the relatively poor mix offered by the merging of the car interests.

The trend, however, has been evident in Europe for the last ten years. Mercedes has emerged as the dominant group in Germany via the takeover of Hanomag, Henschel, Leyland has put together the latest truck group in Britain and Fiat has set up the pan-European Iveco organisation.

Last year rationalisation also got under way in France when the Government stepped in to help finance the takeover of Berliet by Saviem, the Renault subsidiary.

## Objective

Thus in all the main vehicle-producing nations in Europe, mergers have been pushed through or are on the way. In all cases, the objective has been to achieve greater size, and with it to rationalise the range of vehicles across longer production runs. In other words, the same principles that have been applied to the reorganisation of the car industry since the last war have now been extended to trucks. The era of the localised markets supporting many different marques is being eclipsed in Europe as it has other.

been for many years in the U.S. The problem in bringing big truck empires together, however, is that it is not always easy to integrate the marketing organisations. There is considerable pressure towards production rationalisation because of the cost of parts. The integrated organisation can develop new products more cheaply than a number of smaller organisations; it can also buy components more cheaply because it requires greater numbers; and it can organise its production using more of the flow line principles than ever used to be contemplated in the truck industry.

Nevertheless, customers still have strong ties in the truck industry with particular marques, and virtually all the companies that have been formed in the last decade have faced the problem of overcoming this name identification. Mercedes has been the most successful at this, ruthlessly eliminating the names of the companies it has taken over, and carrying along customers on the carefully-nurtured image of the quality in the product behind the three-pointed Mercedes star.

All the other groups, however, have chosen to soldier on with the marque identifications they inherited, not always with the greatest of success. British Leyland, for example, is still identified in many customers' minds with the old AEC and Guy marques, although both these companies were taken over during the 1960s. Its Scottish operations are also clearly divided in many minds between the Bathgate and Albion lines, made in different plants with a different history. Part of the reason for this continuity of image is that Leyland was not so ruthless as Mercedes in eliminating rival company names. But Leyland wanted to retain some of the brand loyalty which is so strong in the industry.

Similarly, Saviem and Berliet have been allowed to keep their identity since the merger about two years ago, although this policy seems to be fading fast since the work of rationalisation began. The Swedish companies insist that they will keep their separate marques and marketing organisations completely independent of each other.

Volvo and Scania probably had more reason than any of the other groups to retain their independence. They already had two extremely strong organisations established on a fairly wide international scale and competitive on volume grounds with most of their major rivals. If the marques had been brought together, these images would have been confused and dealers could have been lost to other companies. This is particularly true of Sweden, where they control something like 98 per cent of the heavy duty truck market, evenly split between the two. Any shake-up in marketing could easily open up dealership points for overseas companies trying to break into Sweden.

The Swedish companies are much more likely to concentrate on economies they can make in design and engineering—it is reckoned to cost up to £50m to design a new truck to-day—and on extending their range into the lower weights than on marketing re-organisation. Even so, the direction of the Swedish thinking is not going unnoticed in the rest of Europe. There is a clear pressure towards larger national groupings, with a drive towards manufacturing and marketing on a European scale.

## Obvious

The progress towards a pan-European approach has been taken furthest in northern Europe, possibly spurred on by the obvious trucking routes across the north German plain. Mercedes, Volvo, Scania and DAF have been the pioneers in expanding into other countries and establishing a network of dealer and service points overseas so that their vehicles do not run a great risk of being stranded by breakdowns at any point. Fiat Iveco, Leyland and Saviem/Berliet are now trying to follow a similar path throughout Europe, along with the U.S.-owned Ford and General Motors groups.

Whether all these companies can develop on a European scale and find a sufficient market within Western Europe to support themselves is one of the larger imponderables now facing the industry. The establishment of a European market-

ing organisation is an expensive matter, and it is conceivable that some of the ambitious companies heading in this direction will find it beyond them. In many markets it may be necessary to buy a way in, selling at a loss for several years to establish a base.

On the other hand, the established producers have some weaknesses in their organisations. Mercedes, for example, is still in the process of establishing itself in the U.K., and is not strong in Italy. Volvo is very weak in Germany, and not very well established in Italy. Scania has gone through a difficult patch in the U.K. of late. These organisations are therefore not quite as monolithic as they look, and there are opportunities for the newcomers to exploit.

One approach now being adopted by some manufacturers is to develop a wide range of vehicles from the very lightest vans to the heaviest trucks. This strategy gives the manufacturer some flexibility in the face of the violent swings which are likely to occur in the truck industry at any point—when heavy trucks are selling well, lighter vehicles are often in a low period, and vice versa. At the same time, the broad-based policy also gives dealers a bigger throughput and ties them more closely to a particular marque.

The two main exceptions to this approach are the two Scandinavian companies and DAF, which have emphasised the importance of specialisation in heavy trucks and made a great success of it so far. At the same time there are a number of small companies in Germany and Britain which continue to insist that there is a market for vehicles produced in low volume plants for customers demanding special service.

So far, these concerns have managed to prove their point by surviving. Indeed, although Fordens almost collapsed two years ago, ERF and Seddon Atkinson are continuing healthily, and the revival of Dennis indicates that careful marketing can still ensure a future for the smaller producer. This was, in fact, the point which Rolls-Royce Motors emphasised in its abortive bid for Fordens.

T.D.



Axle production at Eaton's plant at Aycliffe in Durham.

# Drivers become more choosy

A NEW concept is now taken into account by any company producing a new big-truck design: driver acceptability. For gone are the days when the lorry driver sat on a cushion on a board, being battered from bump to bump in a din which made conversation impossible as he wrestled an ill-handling machine from corner to corner without benefit of any power assistance.

Modern drivers are knowledgeable and discerning as sports car buffs. They demand power steering, power brakes, comfortable seating—in short, the ambience of the car-driver in the lorry cab, plus living facilities like bunks, curtains, a cassette player, a plug to heat up the kettle and somewhere to stow their gear away from oil and grease.

How far manufacturers go to take this into account is seen in the brochures they put out to sell trucks, which all place great emphasis on cab comfort and design. The truck chassis is still a primitive two- or three-ladder-type construction, but much sophistication goes into braking systems, suspension, steering, and ways of making things easier for the driver.

## Revolutions

The Scandinavians (DAF, Volvo, Scania) were the pioneers, but all the others have now caught up or are in the process of doing so. The typical turbo-charged diesel engine runs to a much lower limit of revolutions than the normal car engine, so the truck driver requires a big spread of gear ratios—up to 16—to make the best use of his narrow power-band if he is to keep the outfit rolling.

Twenty-five years ago trucks were limited to a top speed of 30 mph and the average engine was producing maybe 100 horsepower. To-day the legal requirement is 6 hp per tonne and the motorways call for a vehicle able to roll at 60 mph or more 16 hours a day carrying a gross weight of 32 tonnes, soon to rise to 40 tonnes. The same machine must also be able to climb steep off-motorway hills, so we are now in the realms of 300 hp from a turbocharged V8 or in-line six.

In the United States the over-drive gearbox and the single-reduction axle were available earlier than over here as their road network was developed before ours, but now British designers have adopted these specifications, although Continental makers still take a big slice of the over-32 tonne market.

Legislation is expected calling for not more than 78 dB(A) of noise in the truck cab, which is about the level from a car exhaust. Protusions which might cause damage to the driver are also expected to come under scrutiny. At Ford, for instance, half its forward programmes budget is committed to changes to bring existing products in line with anticipated legislation.

Trucks throw up curtains of road spray even on modern well-drained roads, the rigid tandem axle vehicle being the worst with eight closely-spaced tyres. If wheel-spray spats were reduced, calling perhaps for single tyres, feasible on modern 70 per cent aspect ratio tyres which could be developed to carry 4 tonnes each at 120 kph, with an eight-foot high container on board.

The economics of road building may also force lighter axle loadings to cut down road damage by the 40-tonne trucks of post-1980. Vehicle stability will also have to be improved as lighter controls and lower noise-levels plus higher speeds, aggravate the roll-over problem. Truck brakes have much im-

proved, and air actuation eliminates the danger recently discovered in cars of the way in which hydraulic fluid absorbs water from the atmosphere and loses efficiency.

Automatic transmission has not made much progress in Europe as it costs up to £2,500 extra, but the exhaust brake which saves the wheel-brakes and gives a big safety margin is common. The hydraulically-assisted clutch helps to reduce driver effort.

The modern Eurotruck's 300 hp super-charged diesel engine may cost £2,500 and have a life of a million miles, but as much effort goes into cab design, Ford uses the Berliet cab which is fully tilting for service and permits three-breast seating, meeting the twin objectives of easy service and driver comfort. All cabs are sleeper-length. To keep out noise there are no holes in the floor except one for the gear-lever, which is heavily insulated with a close-fitting gaiter. The whole floor is covered with a 19 mm rubber-foam-rubber sandwich.

Bedford has a cab of its TM range which won a Design Council award for "high overall standard of detail design." It features high-level floor, deep windscreen and large side and rear windows giving good all-round vision. Well-positioned steps ease the driver's entry and exist. Throughflow-ventilation keeps drivers fresh, aided by copious sound insulation. Heating and demisting are also of a high standard. The optional sleeper-cab accommodates two big men in bunks, with a stow-

age compartment for bed linen and blankets. The bottom bunk has a bar to keep the occupant in, and the top one retaining straps. The nylon mattress cover can be supplied to match the seating, and each bunk has its own reading lamp. There is a wardrobe deep enough for a hanging jacket.

## Adjustment

High-backed seats are a feature, with their own suspension and adjustment in several places, with knitted nylon covering and luxury foam upholstery. The passenger has head and armrest. A buzzer warns the driver of any fault. Bedford also features taper-leaf front springs which it claims give a better ride than any other truck, with a weight-saving of 40 per cent, by using only two leaves instead of many. They are also used on the rear of tractor units.

Dodge, the Chrysler truck, also features its cab, which it calls the Dodge Commando, and states bluntly in its publicity material: "It's the driver who decides a truck's success." Its Hi-Line cab has trim, roof lining, rubber floor mat, full opening windows, face-level ventilation, heater and demister, steering column lock, courtesy lamp in roof, antiburst door locks. The seat has its own suspension, adjustable for height, reach, rake and cushion angle, and is contoured to fit the driver as in a sports car. The driver also has a lockable glove-box, coat hooks, door pulls and handles to help climbing in and out. A

four-crew cab is standard with seating for eight. An indication of the diesel engine is used in the United States, Dodge, an American, offers the choice of Perkins or a Mercedes unit. It also makes a light pedal-press clutch "eliminate fatigue." Dodge also features full air brake system models with a full-scale air supply. Corrosion-resistant nylon brake pipes for easy fault-finding are used.

Dodge also features "driver comfort" in its cab, with protective electric screen wave sun visors and slimmer better visibility. Tri-plate upholstery and among the big make-up, comfort and convenience any other factor.

In the league table of first seven months of Ford was leading in sales trucks, with British second, then Bedford, followed by Chrysler, Volvo was the importer, followed by IVECO and DAF. An interest light is that although U.S. only 10 per cent are currently diesel, the British Lucas cab opted to set up manual CAV diesel fuel injection in South Carolina view to cashing in on the anticipated future of the diesel-truck market.

George

# Buses face a jolt

## THE BRITISH BUS MARKET—SIZE OF STAGE CARRIAGE

PTES	Fleet	
	double	single
London Transport	5,600	1,200
National Bus and Scottish Buses	8,200	13,000
Municipal authorities	4,100	1,700
Independents	300	3,300
Total	27,700	20,700

producing chassis for trucks. But in the case of the biggest double-deck producer, Leyland, this will not be possible because its Titan vehicle (formerly the B15) is of integral construction and altogether a more sophisticated creature than the chassis-bodies of the past.

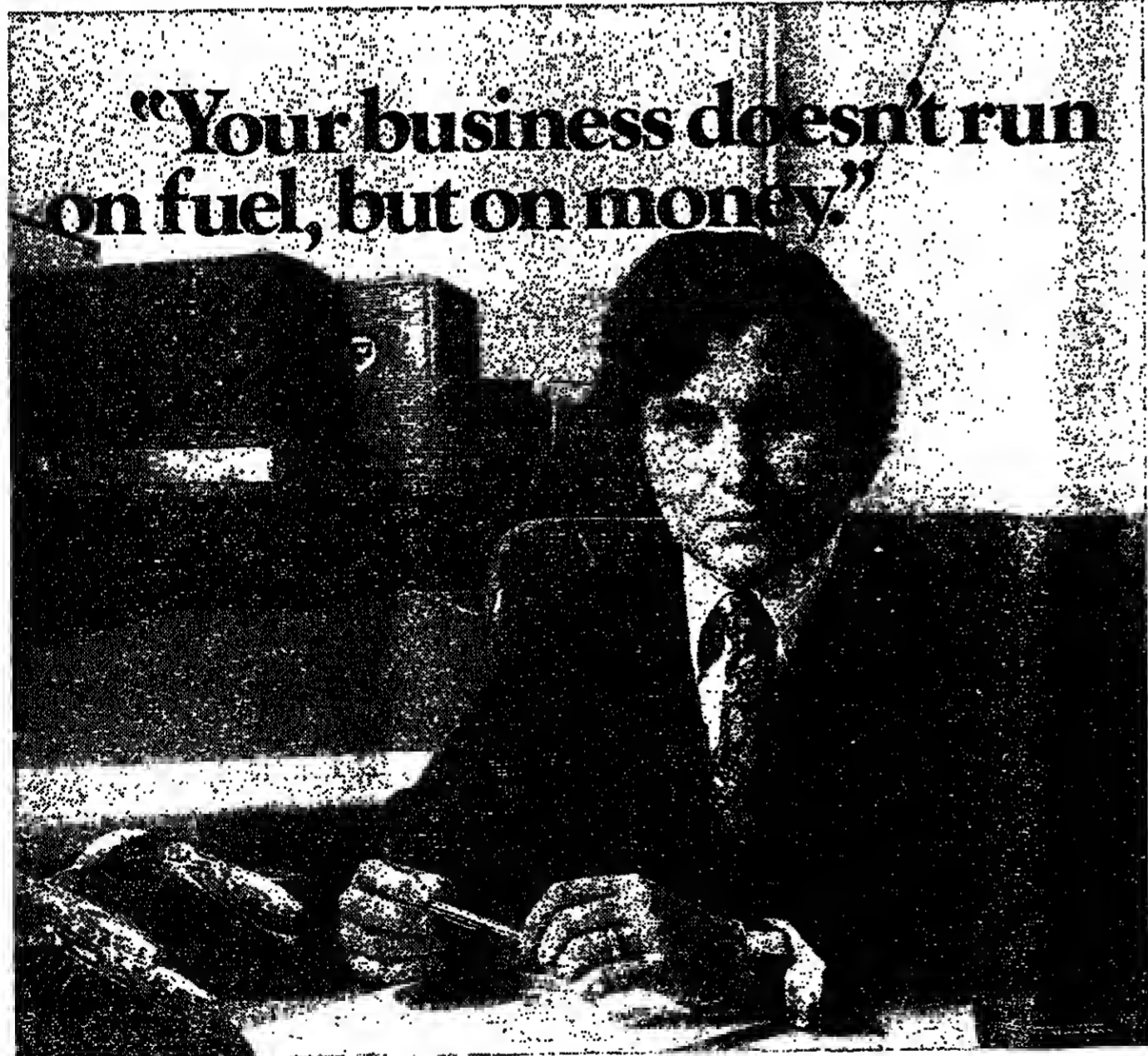
It was partly because Leyland needed to be doubly sure of its market that the State-run company, pushed along by the National Enterprise Board, has taken so long lifting the Titan from design stage in 1972 to production at the end of this year. Most critically, this period has embraced Leyland's attempt to lure its major customers—London Transport and the metropolitan county passenger transport executives—into a new manufacturing company to finance production and development of the bus and, by implication, to give it assured sales and thereby iron out the traditional cycles of the market.

In the interim, however, Leyland's competitors, encouraged by the widespread criticism of Leyland's past failures to manufacturing con-

deliver and there demand, had begun to be far too soon to the outcome will be best, but it probably assumed that the direct competition between the sophisticated buses of Leyland, Cammell on the one hand and the other manufacturers, perhaps among the smaller operators, who do not hulk.

The first result of competition, then, has been the generation of lively sales banter. Leyland's smaller knock Leyland's and cry "monopoly," and somewhat left away rival models board efforts lack operating ability. Smith, general manager of Leyland Truck and neat side-swipe at Metrobus, only just type form, describe service-tested Titan genuine ironmongery business and not a monopoly is highly although some can the marketing war too great lengths, it even greater floor supply in the early of the manufacture real trouble. But only two of the collective double-deck about 9,500 is the country, have indicated to join in the manufacturing con-

CONTINUED ON NEXT PAGE



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# Battles among the heavy brigade

THE heavy truck market in the U.K. is expected to be a hotbed of competition in the next few years. The Leyland Group, which has been the dominant force in the market for many years, is expected to be challenged by a number of new entrants, including the Volvo Group, the Mercedes-Benz Group, and the Scania Group.

Last year the U.K. market for articulated truck units over 28 tonnes was 10,435 vehicles and went up to 18.7 per cent. of the total truck market. In the first six months of this year sales were 7,306 and this represented a 21.2 per cent. share of the market. Leyland now claims to be market leader with a market share of 17.7 per cent. in those seven months, compared with 14.9 per cent. for the whole of 1976, when Volvo held the lead with 20.7 per cent.

The heavy truck sector has continued to grow in a depressed market lately because operators have been convinced that it is more economical. Where possible all are trying to run the bigger lorries in an effort to cut costs per mile and to reduce the overall size of their fleets. As wages go up for drivers and maintenance engineers, fuel, oil and tyre costs rise and road tax becomes very costly so there is a disproportionate benefit to an operator of cutting his fleet by even one lorry because he can carry the same volume of goods on one less.

power units speed journeys, reduce wear and are often as economical. All this again improves costs per mile, and therefore profitability. Other subjects likely to come under future legislative scrutiny are noise and emission controls. The first, however, will be just over minimum brake horsepower delivered per ton carried as influenced by driver requirements as by laws. Recently, particularly at a time of wage restraint, drivers have been seeking to improve their lot by insisting on improved cab conditions. This has led to the deluxe cab becoming the norm and is now percolating down to the smaller vehicles.

Emission controls will be more difficult and will need close co-operation from the fuel injection manufacturers, but they seem bound to come as the main source of power for many years to come. Both Leyland, by having to base designs, to some extent, on a long gaze steam have been experimenting with alternative sources but neither is likely to make any early impact.

But the real battle will not be chasing after legislation, either real or imagined, but legislation which means at tight-rope walk between flexibility and cost control. It is impossible to build a 44-tonner which is all things to all men as the cost of building the beefier vehicle would price it out of the 32-tonne range. The need to meet differing market needs therefore leads to reduction in volumes and a loss of the economy of large scale.

Ranges There is, however, some hope that engine ranges may be rationalised as talks continue and operators themselves turn to higher output engines. While the bhp argument is also linked to the axle-weight argument the operator argument is constant and based on efficiency. Many claim that a smaller engine does not really give im-

proved fuel economy and at the same time is strained by and more, recently Denmark, drivers in a hurry. Bigger



A new M.A.V. tractor unit.

however, removed all the anxieties of the industry and not indeed has it resolved many of the puzzles. At present, there seems to be no bottoming out of the decline in demand for bus travel (passenger numbers have fallen by about 40 per cent. a year for some years now) and although some urban services are picking up, the size of Britain's bus fleet—bigger per capita than any in Europe, seems certain to fall further. Concern about the effects of this decline on rural areas, where many car-less households are now entirely dependent upon charity for mobility, was loud in the White Paper, but the programme of rural experiments prescribed seems unlikely to provide serious answers before the cash crisis reappears in an even more alarming form. It may be that in the warmer economic climate of the 1980s, a few extra million pounds to keep the buses running will be neither here nor there, but there must come a point when the structural problems of rural public transport are tackled. And in the meantime, bus operators are warning that EEC regulations shortening the permitted driving day will add over £80n. a year to their costs from next year.

So for the manufacturers of buses there are, as ever, more uncertainties than certainties in 1977. The general trend away from single-deckers for stage-carriage services continues, but even that may begin to look different if the articulated bus (in effect two single-deckers linked together) demonstrated in Britain recently by Leyland's Danish subsidiary is legalised in this country.

Outside Britain, there have been some encouraging announcements about public authority spending on bus services, especially in the U.S., Canada and Australasia. In the developing world, too, it may be that the surge of interest in rail-metro solutions to urban traffic problems has ended now that the costs have become more apparent and that the bus, perhaps even the British double-decker, could be in for a new heyday.

In Europe, competition from other manufacturers is probably too strong to permit more than a foothold for British bus and coach makers, but there is no doubt that unless some pretty rapid downward revision of production estimates is to be done, only the overseas markets will be able to take the strain out of Britain's 1980s bus bulge.

Ian Hargreaves

## Buses

CONTINUED FROM PREVIOUS PAGE

### EUROPEAN BUS PRODUCTION

	1975	1976
U.K. single-deck	33,200	30,700
U.K. double-deck	2,441	2,415
France Single/double	3,396	2,790
Germany Single/double	19,218	20,112
Italy Single/double	6,412	5,071
Sweden Single/double	5,349	4,664

\* U.K. is responsible for 95% of used double-deck sales.

Source: SMMT

The other factor bearing significantly upon the future of the bus business is Government transport policy, recently reshaped by the first major White Paper on the subject for ten

years. This was generally sanctioned an extension to the interpreted as being kind to period for which grants towards buses, mainly because it with-drew the threat of halving paid.

This White Paper has not.

Stuart Alexander

# And then we specialised in trucks above 9 tonnes GVW.

## A question of foresight!

Exactly. It wasn't by accident that we chose to specialise on trucks in the heavier categories. First, we made a thorough survey of the market, then, we made our choice.

We are, of course, still carrying out market research, day-in, day-out, keeping our finger on the pulse. Keeping up with the unpredictable social and economic developments—and more importantly, keeping ahead of them. The top of the DAF Trucks range is more than an adequate answer to current demand for heavy trucks. Foresight and quality

control are what count at DAF Trucks. That's what it's all about.

Not just in our traditional European market, but also in those countries with growth potential just look at our activities in Africa and the Middle East. We are continually looking beyond the front of our trucks, endeavouring to make the widest possible use of our know-how and production potential.

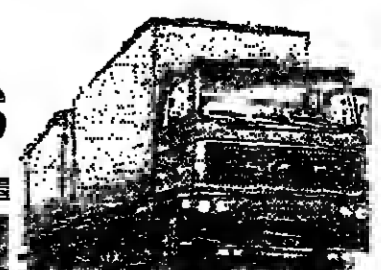
Our production programme includes trucks, tractors, tipper, concrete mixers, bus chassis, special vehicles, trailers, semi-trailers,

terminal tractors, military vehicles, complete engines and axles. All this makes us the most versatile manufacturer in Western Europe. Are we satisfied with this? No. We cannot afford to rest on our laurels, we know that the success of tomorrow is gained by looking ahead today. We are doing just that.

A question of foresight

For further information DAF Trucks, Sales Promotion and Advertising Department, P.O. Box 1055, Eindhoven, Holland. Tel. 040-149111. For the United Kingdom: DAF Trucks (GB) Ltd, Thames Industrial Estate, Marlow, Bucks SL7 4LW. Tel. 06284-6855.

DAF Trucks



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## COMMERCIAL VEHICLES X

## The pros and cons of diesels

A RECENT Government-sponsored report by the Advisory Council on Energy Conservation came to the somewhat obvious conclusion that substantial fuel savings could result if half the 1m. petrol-engined vans in Britain in the 25-350 hp range, or some switched to diesel engines. But 60 per cent of total world output goes on to point out that a suitable light diesel engine is not made in sufficient volume in the country. The report appears to overlook some factors likely to influence the decisions by van owners to make the switch, and by diesel engine makers to start a new factory. The investment needed for manufacture is of the order of £1,000 per unit per year, and since even 10,000 units a year is not going to make much of an impact, a manufacturer would need a substantial incentive or guarantee before committing £10m. or more.

While it is true that the light van market offers good prospects of growing at a faster rate than other sectors it could be affected positively or negatively by politically inspired legislation. Nor can one count on the petrol engine not being improved to provide better fuel consumption; quite the reverse. A new generation of petrol engines could show a 20 per cent. fuel saving to swing the balance in their favour again. One of the most important factors in assessing the potential for diesels in any market is to look at the price differential of diesel and petrol. One has to look no further than the U.K. to see how hazardous it is to forecast likely big increases in diesel-engined light vehicles. As the result of Parliament insisting that the Government withdraw its proposed extra 51p a gallon on politically sensitive petrol—but leaving it on diesel—diesel has now become more expensive than four-star petrol, and so at a stroke altered the cross-over point where potential customers would opt for a diesel engine rather than a petrol engine.

## Upswing

Diesel penetration has already gone so far in Europe that it is difficult to see a dramatic upswing. This is the power unit for all but a small fraction of agricultural tractors, commercial vehicles of over four tonnes, taxis and buses. In the U.K. the market for diesel vans of under 3.5 tons capacity reached a peak in 1973 before feeling the effects of the three-day week and constraints of motor industry disputes. Diesel penetration has only compar-

tively recently begun to overtake the 1971 figure, and it is currently running at around 30 per cent. of the total, which last year was about 122,000 units. Western Europe produces about 2m. high-speed diesel engines in the 25-350 hp range, or some 60 per cent of total world output.

The U.K. and Western Germany each produce around 700,000 units each, about the same as in the U.S. and Japan. France and Italy follow in the decisions by van owners to make the switch, and by diesel engine makers to start a new factory. The investment needed for manufacture is of the order of £1,000 per unit per year, and since even 10,000 units a year is not going to make much of an impact, a manufacturer would need a substantial incentive or guarantee before committing £10m. or more.

In between are the vehicle manufacturers like Ford, General Motors, British Leyland, Peugeot, Fiat and others which make diesel engines for part of their range and buy in the rest of their needs from the "independent" makers. The pattern is much the same over the rest of the world, although in America the cheapness of gasoline has largely confined diesel engines to the heavier trucks and tractors. America is seen as the big growth area in the next decade or more, though demand is unlikely to take off with quite the same speed as it has done in Japan where, last year, light vehicles sales accelerated from 1,500 to 230,000 units. Not surprisingly in view of Japan's rapid expansion in diesel output there is surplus capacity still to be soaked up somewhere.

A study of the world market by Perkins Engines shows that last year diesel engine output for automotive applications totalled 1.86m. units, with 1m. for agricultural purposes and 0.9m. for industrial and marine. The aggregate of 3.8m. is just 1m. greater than in 1970. Within the automotive bracket the fastest growing sector has been, and continues to be, light vehicles. This has been growing at an annual rate of 16 per cent. which compares with 4.5 per cent. for heavier commercial vehicles, and 12 per cent. for cars. Leading vehicle makers in all the main production centres of Europe have been expanding their light diesel engine programmes for panel vans and other types of commercial vehicles in the up to 4 tonnes range. Over the next decade, assuming demand is not

distorted one way or the other by legislation or other factors, Perkins sees the automotive sector growing by around 8.6 per cent. a year, with industrial diesel engines the next largest growth area. Accompanying this growth will be a steady trend towards higher horsepower, in the range of about 1.5 per cent. per annum for light commercial vehicles and cars, in much the same way as has occurred in the tractor field.

If these projections prove anywhere near correct, there should be good pickings for British diesel engine makers and motor manufacturers, for their particular strength lies in the lighter end. To an extent it has been left to heavyweights like Rolls-Royce, Cummins and Caterpillar to fill the gaps in the higher horsepower end.

The trends, given an upward twist by the oil crisis of 1973, have been as keenly noted elsewhere in Europe, and an extension of tied production in the motor industry will limit the degree to which "independent" producers can benefit. The enlarging pattern of multi-sourcing also has to be taken into consideration, especially among the international companies like Ford and General Motors, and the closer technical links such as those being forged between British Leyland and Renault, Peugeot and Ford.

All in all, Perkins takes a cool view of the future. As a supplier to several main motor industry plants like Volkswagen (for its LT van) and Volvo as well as being a rival in areas where the same customers are selling "loose" engines, it is well briefed to make an assessment.

## Investment

"We see no diesel explosion," Mr. Mike Hoffman, Perkins Engines managing director declared. "We don't see the same amount of change occurring in the next five years as in the past five." Perkins has no intention of making a major investment to expand production for what could easily prove to be an illusory market. Some of the reasons for this have already been touched on. In thinking through its future the company is vividly aware that it would no doubt be welcomed as a supplier to a producer of light vans (for instance), but that when demand began to exceed, say, 20,000 diesel engines annually, the customer would decide to make them himself—as happened when Ford's York engine displaced Perkins. And also, it is impossible to forgo against changes in legislation which could result in finding an investment of £13m.-£20m. too advanced for its time, technically or in demand terms. Moreover, a lightweight diesel for commercial vehicles would not necessarily also cover cars, which have different requirements for durability and price. A diesel for the life of a car, 80,000-100,000 miles at the out-

side, would be of different design to that needed for a longer-lived, higher mileage truck.

That is not to say Perkins is standing on the sidelines. It has just committed £9m. in machine tools and equipment for a new engine, code-named Q11, as a logical development of the popular 4-108. It is also spending around £1m. a year on research and development as an important part of the £15m. or so a year being spent in U.K. to enable the company to continue to provide high technology engines to keep it in the van of progress. But it sees no immediate prospect, or necessity for departing from the current concept of four operating subsidiaries, although the opportunities for further licensing and associated activities are considered bright, especially in the ASEAN territories. The company is presently tendering for a joint venture project in Singapore on the lines of those in Iran and Poland. Such developments are having a dramatic impact on shipment of parts, ranging from a few key components to an almost complete engine, for assembly overseas. In three years the kit content has more than doubled from 58,000 units to 163,000, and two-thirds of Perkins' worldwide production comes from the Peterborough plant in the form of finished engines or kits.

In looking at diesel markets, the motor industry sees America as a significant growth area, for while it is heavily dieselised in heavy transport, both the light commercial vehicle and industrial applications are chiefly dependent on gasoline. However, prospects are clouded by the way in which legislation to deter gasoline consumption will be formulated. It may well be, for instance, that smaller petrol-engined cars will be introduced (which would present additional competition in export markets as well as curbing imports) and that the big cars will be kept on the roads with diesel engines. Until legislation becomes a lot clearer it is impossible to forecast what the light commercial vehicle market will do. One guesstimate puts it at around 150,000 units a year.

Taking a wider view of the world energy problem, there is obviously scope for extending the 7 per cent. diesel penetration of the light vehicle market, perhaps above the present 16 per cent. per annum growth rate. As has been said, the chief area of expansion is Japan, and it may be significant that it has just started to market light commercial vehicles in real earnest, perhaps to offset the voluntary curb on car sales.

There can be no doubt that although diesel imports have so far been negligible, the Japanese are capable of exploiting the market with the same aggressive brilliance they have shown in motor-cycles and cars.

Peter Cartwright



A step-frame van trailer from Bedford on hire to the Welsh National Opera Company.

## Trailer market picks up slowly

THE U.K. trailer industry is now being pulled along in the wake of the rising commercial vehicle market to sales levels last achieved about four years ago. For the moment, at least, the depression appears to be over with output predicted at about 18,000 units for the year compared with 12,000 in 1976, and although there are some fears of slippage in the latter half of this year, the industry is able to sell everything it can make at present.

The years of slump have been used in the traditional fashion to restructure the industry, so that it is emerging as a more compact group of larger companies than it was a few years ago. The big question hanging over all these moves during the last few months has been the future of Crane Fruehauf, the biggest concern in the industry, and the subject of a Monopolies Commission investigation following a bid from Fruehauf Corporation of the U.S., which already owns 33% of the British organisation. This bid could clearly have a great impact on the future of the U.K. concern given that the American has a company already controls several similar trailer companies on the Continent with the possibility of either inte-

grating or dividing manufacturing and marketing between them.

Crane Fruehauf itself emerged from a reorganisation of the British industry in the mid 1960s which saw the merger of Crane, a post-war U.K. company, and Fruehauf, which was looking for an entry to the British market. Since then this group, combining Crane's expertise in the quality end of the market with Fruehauf's knowledge of mass-production techniques, has asserted its dominance in the U.K., capturing about 50 per cent. of total sales. In 1968, it took over Bodens, another fairly large volume producer, and last year pushed into a further diversification with the acquisition of Pengo, a Peterborough producer of rigid commercial vehicles and vans.

## Acquisition

The Pengo acquisition confirms Crane's intentions to develop as broad a base to its business as possible. It takes the company into the smaller-size product end of the industry where there continues to be strong demand, and where unit sales may actually increase—opposed to the heavier end

where unit output tends to stagnate although the size and volume of the individual product increases.

At the same time Crane has this year made considerable headway with its marketing of the double system of trailers. This involves pulling two trailers behind one another in motorway conditions, then breaking them up separately for individual delivery, the idea being to eradicate the costly business of splitting loads for delivery around urban centres. Doubles have been used extensively on the Continent for several years, but were only legalised in Britain about two years ago, and operated up to now under supervision of the Ministry of Transport. But in recent months there has been a notable relaxation of the Ministry's policy on granting doubles permits, which seems to indicate a growing approval for the system. The basic British maximum vehicle weight of 32 tons still applies for the vehicle, but a slightly longer total unit is allowed—18 metres against 15 metres. Thus the system lends itself to use by organisations such as supermarket chains which require a great deal of bulk rather than weight, and may have a variety of delivery points within an individual contribution. The two trailers are unhitched and coupled up to separate tractor units for final delivery.

York Trailer, another transatlantic concern, based in Canada, has been particularly aggressive in its takeover policy during the last year as it built up its challenge to Crane's dominant position. The first of these acquisitions was Carrimore, a Durham-based manufacturer of hoists and tipping equipment, as well as a small-scale trailer builder. The idea behind this £940,000 move was to add Carrimore's expertise in the hydraulic field to the highly integrated York business, which already encompasses suspensions and axles at its Market Harborough works.

The second York acquisition was of Scammell Trailers, a company within the Special Products group of British Leyland, for £700,000. Scammell used to be a division of the Scammell truck business which is now part of Leyland Truck and Buss, but had been hived off into different premises at Hovingham near Nottingham. In an attempt to build it up into a profitable contender in the market, although the company launched a new range of trailers last year which was relatively well received by the trade, it failed to make the kind of profits demanded by the new Special Products management, and was therefore hived off to York.

York has, in turn, promised to keep the workforce and facilities intact—it needs Scammell for extra capacity, it says—and believes that the purchase will push its market share up to about 35 per cent. The third of the significant U.K. producers, Cravens Homalloy has also formalised its own reorganisation this year by changing its name to Craven Taskers, and deciding to manufacture all its trailers under the TASK logo. This institutionalises the absorption of the former Taskers concern into the

group after its takeover early 1970s.

At the same time, Taskers, which is a subsidiary of the John Brown group, taken on a licence with Delattre-Levivier group in France to strengthen its position in the more specialised of the manufacturing industry. The French manufacturer, particularly skilled in the multi-axle heavy duty, suitable for carrying loads of up to 1,200 tonnes.

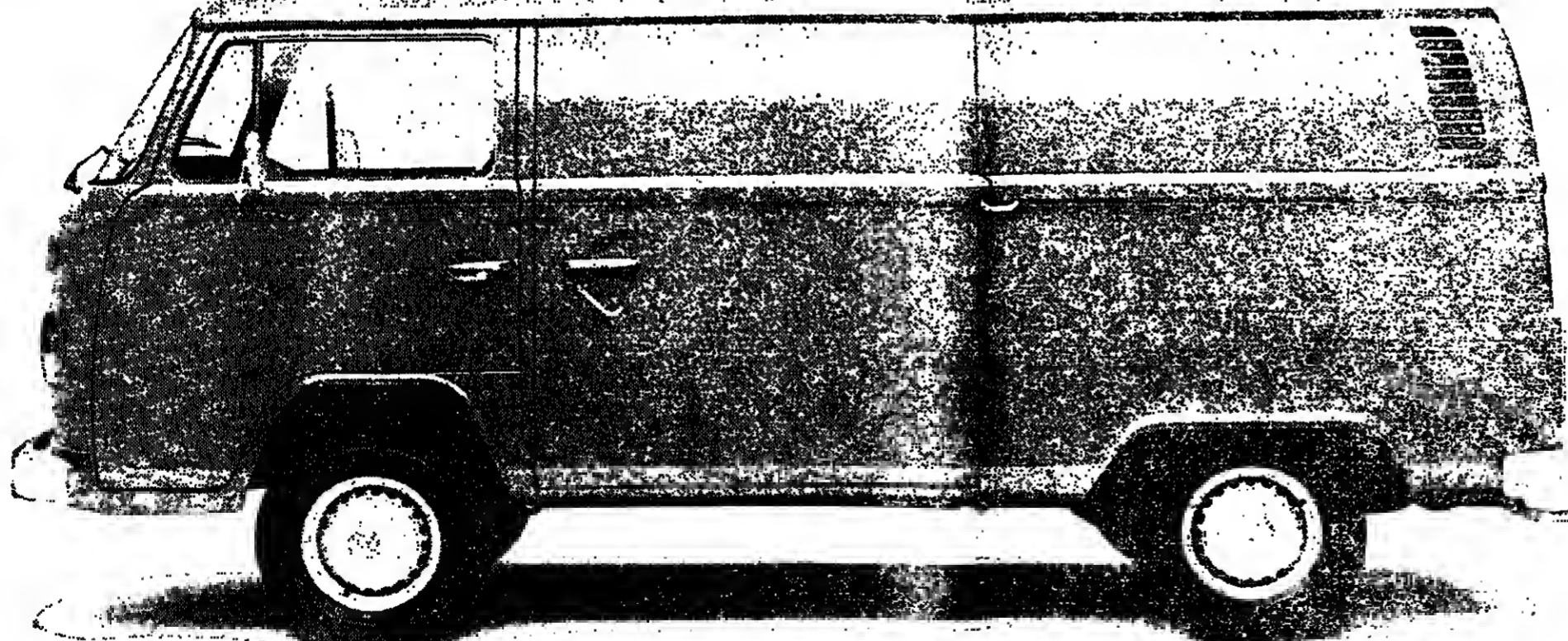
The other element of rationalisation of the industry is the growing influence of U.S.-based companies, the biggest American being Fruehauf and Pullman, highly active in Europe. Fruehauf established many, France and Holland as the U.K. through its ownership of the Trailpany. Trailer, a business in France, now based in Britain as well as its acquisition of the Peak Trailer company, although this has not a significant force as clearly makes the A owned company a thin longer term. It itself, with its ability to its manufacturing acumen, its European centric marketing tent the U.S., has also set a commanding position.

## Operational

There has been strong evidence over the past few years to suggest that the industry which has taken Britain has been successful in creating a stronger, more able to compete on a world scale. Exports have risen steadily in the 1970s, with smaller concerns such as M. and G. (a subsidiary of J. and J. Dyson), Bonalack owned by Tidd Strongbox and Systems following the big concerns and taking up the slack or the depression in the 1970s, sales to the rest of Europe further afield. The Middle East and have been particularly successful in this year, for Crane Fruehauf has a distribution organisation in Saudi Arabia which has £3m.-worth of orders. This follows the great assembly organisation year ago, which should fully operational. York Trail, has done a great business in Nigeria, beginning to establish sophisticated haulage on the back of its oil

All of these concerns, also looking forward to ing sales in Europe even further afield. E the Middle East and have been particularly successful in this year, for Crane Fruehauf has a distribution organisation in Saudi Arabia which has £3m.-worth of orders. This follows the great assembly organisation year ago, which should fully operational. York Trail, has done a great business in Nigeria, beginning to establish sophisticated haulage on the back of its oil

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## Immediate deliveries.

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The Volkswagen Type 2



# The component makers

COMMERCIAL vehicle the two German manufacturers, already co-operate in the production of a range of big engines, for instance, and MAN and Volkswagen are forming a joint organisation for production of a medium size truck, while Mercedes and Steyr-Daimler-Puch, the Austrian companies, are getting together to produce a four-wheel drive Land-Rover type vehicle.

Even so, a number of independent component producers believe that the time is ripe for a vigorous attack on Continental markets. Within the past two years, for example, Perkins has established a diesel engine assembly plant in Germany, and Eaton opened a new gearbox manufacturing factory in France. These complement the well-established operations of ZF, the German gearbox manufacturer, which has an established position as a big European supplier.

The main base for most of the independent suppliers lies, naturally enough, in the U.K. This is partly because the British industry has historically been based more on the concept of vehicle assemblers rather than integrated manufacturers, and partly because the U.K. was selected as the main base for the American component companies' invasion of Europe. Cummins, for example, came to Britain about 20 years ago to establish its European diesel engine operations, and Massey-Ferguson bought Perkins to establish its stake in the lighter end of the European diesel engine business. These diesel companies have been followed by Eaton, Rockwell and Dana in big components like axles and gearboxes, and Bendix Westinghouse in brakes.

With all these separate investments, the Transatlantic commercial vehicle industry now has a very big stake in the European components sector. Along with the two independent British engine suppliers, Gardner and Rolls-Royce, they dominate the supply sector, and it is largely through their hands that rationalisation has come about in the last few years. After a period of steady growth in the last decade they are now delicately poised either to take their expansion further into Europe, or to be repulsed by the new commercial vehicle combines, and co-operative ventures emerging on the Continent.

Eaton, for example, believes sufficiently in its ability to attract Continental companies to its Fuller gearboxes that it has only this year opened a new plant at St. Nazaire in France. Like other component companies, it has come to the conclusion that its efforts to break into Continental markets will be helped by a local presence, partly because of communications, partly because of the need to convince users of an available dual-sourcing facility, and partly because of the nationalistic desire all over Europe to buy from domestically based suppliers.

One factor which may play into the hands of the independent suppliers is the increasing sophistication now being demanded of commercial vehicles by the authorities and demand for quieter vehicles. Some analysts believe that the high expense of this legislation will force companies to seek common research and development, either through co-operative ven-

tures or through a common supplier who can offset costs against a number of different types of customers. For example, if her International Harvester, the biggest commercial vehicle company in the world, and now the owner of both Seddon Atkinson and British Leyland has been predicted for some time in the U.K. and Daf Trucks in Holland.

If these companies grow in the European market in line with the plans which they have clearly laid down with the launch of new heavy vehicles in the last few years, the future for the independent suppliers will be bright. Both Ford, with its dramatic expansion into the commercial vehicle sector in the last 10 years, and Bedford, with its long-established strength in this area, are now trying to push into an expansionary phase in Europe; and it is difficult to believe that International Harvester will not want to build on the assets it has now acquired this side of the Atlantic.

On the other hand, the indigenous European commercial vehicle companies are now talking more and more about

joint development projects. Saviem has recently come together with Fiat and Alfa Romeo, for example, to build a new plant for small diesels in Italy, and British Leyland has talked with Fiat about using this unit.

The European producers are showing, therefore, that one way or another they are determined to maintain their own integrity. British Leyland has itself made it quite clear that it will go ahead to develop new range of heavy engines both to serve jobs in the group, and to maintain a stronger hold over the final product produced by the company. There remains a great emphasis in the industry on the individual marque, and a belief that the quality of the name can best be achieved by controlling the whole manufacturing process. This is the reasoning which the independent suppliers have to overcome in Europe if they are to be assured of a steadily expanding future.

The master of custom-built products in the U.K., however, is Foden's, the Cheshire-based concern which has for a long time been noted for its high quality product. Foden's trucks are not cheap, selling at higher prices than even the more expensive imports in Britain which are having to cope with high labour costs at home and unfavourable currency relationships. But Foden's remains one of the very few companies in Europe to-day which is interested in building one-off vehicles—both ERF and Seddon Atkinson, Britain's other two small scale producers, basically produce standard ranges to a customer's particular specification. "If you can think of any heavy vehicle which you have seen on the road in the last 20 years, you can be virtually certain that Foden's has built something like it," says one of its competitors.

## Relationship

On the Continent, the only similar company to Foden's is Faun, the West German manufacturer, with which the British company established a marketing relationship a few years ago. Faun, also a very small capacity manufacturer, has chosen to specialise in tailor made products and has so far resisted the increasing power of the big German truck companies.

Whether these companies can continue to live against the pressure of the giants is, however, an open question. Foden's itself fell into very serious trouble in 1975 from which it had to be rescued by institutional funds. These have stood by the company during its swift recovery in the last year, and refused to bail out to the Rolls-Royce offer. But the truck company now has to live up to some buoyant profit forecasts which its institutional investors will be watching very closely.

The group is also swinging a little from its old principle of in-house engineering. Its new range of vehicles will almost certainly offer customers the option of a proprietary range of gearboxes and axles—the latter possibly because of Continental reluctance to buy vehicles with the former Foden's designed product. This may be simply a sign of the company's adaptability in the face of today's heavy investment costs. It might be the other hand, he the thin end of the wedge towards becoming another straight-forward assembly concern. Whichever way it goes, the Dennis example suggests that a company in this field which is sufficiently flexible and keenly managed can survive.

T.D.

## Role of the specialist

THE HISTORY of the past 20 years of conglomeration in the European and world motor industries has established a powerful movement away from the specialist manufacturer. All the emphasis has been upon standardisation, economies of scale, and the virtues of size. Nevertheless, some companies hold that rationalisation serves only to create holes in the market which others can fill; and it remains true in the commercial vehicle field that there is a need for some highly unusual vehicles which will never be required in bulk, but which take a great deal of skill to put together.

A typical market niche of this kind is being filled in Britain to-day by Dennis Motors, the Guildford-based subsidiary of the Hestair group. Dennis, taken over by Hestair in 1971 when it was a shadow of its former self, has for the past few years concentrated only on

municipal vehicles—dust carts and so on—and fire engines. This has revived the company until it has now reached the point where it can contemplate tackling Leyland in the double-decker bus market once again where it used to have a substantial presence.

Dennis's growth has been achieved largely by its decision to specialise and by its single-minded pursuit of a few markets. For example, it moved into the Middle East in 1973, concentrating on about six states and ignoring the rest. Exports overall have expanded enormously on this basis, growing from £400,000 in 1974 to £7.5m. in 1976 and a projected £13m. this year. In the same period the company's turnover has increased from £5m. to a predicted £21m.

Whereas Dennis's record turns much of recent experience in the commercial vehicle industry on its head, Scammell

consists basically of five vehicles—its fire crash tender, the Contractor, the Super Contractor, the LD 55 dump truck, and the Crusader four-wheel drive vehicle. All of these are being re-developed both for civilian and military use. The Contractor, for example, a big tractor unit which takes loads of between 85 and 240 tonnes, has a good prospect as a military transporter.

Scammell's future in its designated role as a manufacturer of exotic, special vehicles, has to lie overseas. There is simply not a large enough market in Britain alone to keep the company going. It has already made a significant shift in its business from sales of only about 10 per cent. of its output in overseas markets to about 40 per cent., and its new range, when it eventually comes on stream, should give it a considerable boost.

Leyland also has within its original business in Lancashire

T.D.

# GKN supply the wheels of the commercial vehicle industry.

And the axles and propeller shafts.

And the crank shafts.

And the brake and steering column components.

And the cabs, chassis frames and door panels.

And the plastic mouldings, the door handles and locks.

And the gears and bearings.

And the camshafts, valve rockers and push rods.

And the fasteners—the bolts, nuts, screws, washers, rivets and pins.

And indeed, the majority of the components that make up most of the vehicles that keep industry moving in Britain and Europe.

## COMMERCIAL VEHICLES XII

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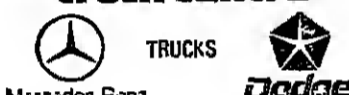
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Desmond Pitcher

## Desmond Pitcher

THE APPOINTMENT of Desmond Pitcher as managing director of Leyland Truck and Bus raised a lot of eyebrows in the commercial vehicle industry. Here was a complete outsider, who had never been involved in the business before, taking over the biggest job in British truck manufacturing. In an industry as closely knit as commercial vehicle production this came as a severe jolt, and there were plenty of Jeremiahs willing to warn of the dangerous consequences of inexperience.

What no one can deny, however, is that Pitcher has a sound grounding in modern business methods, deriving from his spell at the top of Sperry Univac in the U.K. He also has an engineering degree and, appropriately enough for a Lancashire-based company, was born in Blackpool. Much more reserved than the traditional showmen bosses who have come out of Leyland, he is, nevertheless, an approachable man, and has an earnest, professional manner typical of the Transatlantic-style managerial systems in which he has learned his trade.

These sober, analytical methods have been brought to bear on the reorganisation now being pushed through at

Leyland. The flamboyant style of the days when Leyland would dispatch a man to a new export market at a minute's notice, and when the management was so closely knit that major decisions were agreed on the spot, have disappeared. The organisation is being split up into carefully defined divisions, each responsible for one aspect of production and domestic marketing, and each working to specific long-term plans.

These divisions, reflecting the kind of organisational and financial structure which has been developed under the influence of American management thinking, cover heavy trucks, light and medium weight trucks, passenger vehicles, parts and engineering services. The latter is a group function with service responsibilities to all the other divisions, but each of the operational divisions has its own general manager and staff looking after personnel, finance and marketing. Overseas sales are under the direction of Leyland's International Group, which also looks after the Cars group.

As this organisation has evolved since Pitcher joined Leyland ten months ago, it has become clear that Leyland is aiming to make the two Scottish plants at Bathgate and Albion plants a group function with service responsibilities to all the other divisions, but each of the operational divisions has its own general manager and staff looking after personnel, finance and marketing. Overseas sales are under the direction of Leyland's International Group, which also looks after the Cars group.

It is also clear that Pitcher wants to maintain Leyland's deep involvement in component production rather than switching to a pure assembly approach for its vehicles. This is on the grounds both of ensuring quality and control over the product, and of maintaining the level of employment for the group's 30,000 workers.

Already the investment in these new projects—set at about £350m. overall in the Ryder Report on Leyland's future—is beginning to flow. Some £20m. is in the process of being spent to expand output at Bathgate and switch the Albion plant from truck building to components, and another £32m. has been committed for a new, computer-controlled assembly hall to modernise heavy truck production at Leyland, Lancs.

Commenting on these developments, Pitcher says: "Our announcement of a £31.8m. assembly hall for trucks will enable us to introduce progressively variations in our current range as well as new models in our truck programme. This is vital in our plans to improve our share of the truck business and to intensify our efforts to win a sizeable share of the European market."

These profiles were written  
by Terry Dodsworth

## Philip E. Benton



Philip Benton

PHILIP E. BENTON JR., the new head of Ford of Europe's truck activities, inherits an enviable position. At the age of 48 this robust, soft-spoken Southerner from the State of Virginia, takes on a company which has experienced 15 years of steady and, at times, dramatic growth. The company is currently the biggest commercial vehicle producer (in units, which do not, of course, reflect the size of the product) in Britain, and has the largest overall sales. On a wider European scale Ford is probably the second largest producer in the field on about 200,000 units this year against Mercedes' 250,000; and it has a widely-fung sales empire which is one of the broadest based in the EEC and EFTA.

These half statistics overstate Ford's importance in the European industry because its size depends to a great extent on its smaller vehicles. The cornerstone of the company's success is the Transit van, made at the rate of about 100,000 units a year, and a strong point in its marketing expansion throughout Europe since it could be sold through the car franchisees; similarly, Ford will receive a big boost to its figures this year from the sales of its Fiesta van, already launched in much of Europe. These kind of products, in relation to the 50,000 heavy lorries which Mercedes can produce in a year, are small beer in financial turnover terms.

Even so, Ford now has a complete range of vehicles for Europe following the introduction of the Transcontinental heavy truck two years ago, and has just received a boost from raising output of its D Series truck made at Langley in the U.K. from 100 units a day to 134. The D Series, in its phase 1 configuration of up to 16 tonnes, has for some time been in short supply, despite the age of the design which has been in production for 12 years. Bottlenecks have now been removed in the production process to improve the situation, and the added output should help expand the truck's significant export sales which already stand at 66 per cent of production.

Clearly one of Benton's main jobs will be to encourage Ford's ventures into the heavier weight classes which will be vital to the company's future. Market forecasts to-day suggest a continuation of the gradual move towards larger vehicles in the weight ranges over 3.5 tonnes for most haulage except specialised local delivery work. This was the thinking behind the launch of the Transcontinental,

and indicates why Ford wants such a vehicle on the roads as a well-tried product by the 1980s. Another feature in the next few years of Ford's development will, presumably, be new products. Both the Transit and the D Series vehicles are more than 10 years old, and for a product-oriented company like Ford, always working on the policy of replacing vehicles before they have lost their appeal, this seems like a long time.

But possibly the biggest task facing Benton will be in raising sales in Germany. Here Ford has patently failed in its attack on Mercedes' home base launched five years ago. Despite successes in the rest of Europe, and its presence as a home-grown car manufacturer, Ford has been unable to make much headway against the traditional appeal of the established German producers. Other commercial vehicle companies have, of course, suffered from similar problems—even Volvo, with its highly-rated heavy trucks, has made little impact.

But Ford appears determined to go on and to support the 30 or so dealers it has in Germany for a few more years.

## Des Savage

WHEN DES SAVAGE took over as head of Bedford's commercial vehicle marketing about two years ago, the company was in the midst of its most important reorganisation in recent years. This restructuring goes back to a decision by General Motors, the parent company, to establish a different relationship between Vauxhall, the car manufacturer, and its Bedford subsidiary in the U.K. and Opel, GM's German subsidiary. The idea was to integrate their activities more closely, basically by giving Opel the main responsibility for European car development, and Bedford total responsibility for trucks. Within the U.K. this meant

splitting the marketing function for cars and commercial vehicles—the job which eventually went to Savage. But in a wider context, it also meant establishing a new European organisation for trucks which was much more closely tied to Bedford. The change was a crucial one, because in the past the individual General Motors companies within any country had been chiefly responsible for Bedford sales, with only distant links between them and the truck company itself. Bedford had often complained that this eroded its ability to control its own future.

Savage, a 47-year-old former Vauxhall apprentice who had a long spell in vehicle retailing, has therefore been responsible for heading down a new system of marketing in Europe. The idea is to have a marketing team for Bedford trucks in each country which is responsible to Savage, giving Bedford a much closer feel and control of its marketing. The Continental operations, where Bedford has never made the impact which its success in the rest of the world would suggest that it should have done, is meant to have much the same sort of relationship with head office under this organisation as the U.K. sales operations.

Alongside all these organisational developments, Savage has been responsible for the introduction of a whole new range of products at Bedford. The new TM heavy trucks, first announced at the end of 1974, have been gradually brought onto the market over the past two and a-half years until the completion of the project this summer with the launch of the 38 and 42 tonne versions. With three different engines and three different cabs in the range, this is the biggest new product programme in Bedford's history. It places the company firmly in the small group of European manufacturers with a complete span of the market in terms of product range, and gives it a base on which to build far at least it seems to as a European rather than just a U.K. company.



Des Savage

The evidence points to a gradual improvement in Ford's position on the Continent, although this is most clearly seen in the sales of its CF van rather than its trucks. In Britain, Savage presided over a recovery in the division's sales to top the truck tonnage in 1976. Its share has slipped this year to 12,894 units. Up to the July it had sold 6,594 against 7,238 in the same last year.

Despite this home market, however, Savage has pushed up its share substantially this year. In the first half of 1977, the company's output was an average figure of 1,740 a week against 1,740 in the period a year ago. A complete span of the market in terms of product range, and gives it a base on which to build far at least it seems to as a European rather than just a U.K. company.

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## Cyril Corke

LIKE BRITISH LEYLAND, Chrysler U.K. is going through a large-scale revamp of its commercial vehicle operations. This root and branch reorganisation is all part of the Government-backed rescue plan for the company, which is designed to modernise its production lines and establish a better base and an improved product line. At the same time, the group is being integrated much more closely within the total organisation of Chrysler in Europe. This again is an aspect of the rescue scheme, which recommends that Chrysler should seek European economies of scale and make its U.K., French and Spanish concerns act as a co-ordinated unit in its fight to survive.

The impact of most of this reconstruction is still to be seen, but it is already clear that the commercial vehicle section of the company will emerge as a more clearly defined activity. In Europe, for example, commercial vehicles are to be given their own separate marketing organisation which will be quite independent of the car company; and in Britain, the U.K. staff looking after the truck interests have all been transferred to the main truck centre at Dunstable to bring them closer to the action as opposed to the former site at the Ryton car factory.

The man who has the task of pulling the company out of the present trough in the U.K. is Cyril Corke, a 50-year-old commercial vehicle expert who worked for the Rootes group before the Chrysler takeover. Corke's main job in the last 18 months has been to rebuild morale after the crisis in late 1975. Although the commercial vehicle activities resisted the impact of those troubles longer



Cyril Corke

3.5 to 5.6 ton gross vehicle weight range.

The decision to go ahead with this, however, and to continue to compete in the heavy vehicle range, is evidence that the company has decided to give strong support to the truck operations after many rumours of disengagement with this sector. It also indicates that it has no intention of getting out of heavy vehicles, despite the success of the American company in concentrating on the lighter weight ranges only. The new Barreiros 300 Series vehicle, topping out the range at 32 and 38 tonnes (above the 100 series Commando at 7.5 to 20 tonnes and the 500 series of 22 to 28 tonnes) will have tilt and sleeper cabs and more versatility than the vehicle it replaces. If Chrysler can succeed in selling only modest numbers, it will place the company back on the map as a serious contender in the European truck industry.

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# Four-wheel drives

NEWS that a new com- the U.K. drive vehicles were sold in the forward control vehicles use

...the U.K. has been. The same kind of thoughts U.K., the vast majority of them Range Rovers or Land Rovers. This virtual monopoly is coming under very much stronger attack and explains Leyland's desperation to get on with a £249m. expansion programme to double output from the Solihull plant near Birmingham. While no doubt it can defend its home market against all-comers in the range it produces, the Land Rover range is limited to a one-ton payload and thrusting overseas manufacturers have identified the gap above it and are moving fast to fill it.

This is not something British Leyland can do much about, for some years at least. Fortunately, however, the niche for bigger capacity vehicles was foreseen by Mr. James McKelvie, whose untimely death last month (August) robbed the venture of its originator. Mr. McKelvie built up Volvo's truck and bus business at Alisa, Scotland, to the point where it was turning over more than the parent company in Sweden; and he also introduced the Alisa bus in which his ideas of simplifying production and assembly took shape through Mr. Norman Watson, a consultant designer.

Stonefield Developments was formed to carry the concept into four-by-four and six-by-four vehicles, the prototypes of which were built in conjunction with Jensen Motors, which has since been liquidated.

A new company, Stonefield Vehicles, has been formed in which the Scottish Development Agency has a 49 per cent. holding. It is currently engaged in setting up production at the former Scottish Aviation factory at Cranston, near Kilmarnock. The system of construction uses standard steel box sections and tube for the chassis and framework, which are welded in jigs; with engine mountings, springs and some other major components likewise welded to the chassis. The unusual jig design simplifies assembly and changes between models, as well as hand-drive. Prototypes have successfully emerged from stringent testing on military proving grounds, forestry tracks and similar hostile terrain. The

been interest, with 400 overseas orders already taken—practically the whole of the first year's production. Because of the simplicity of design and assembly, it is not contemplated that more than around 3,000 a year will be made in any one factory. Instead, units of this size will be established wherever the demand exists, because all except the engine and transmission and certain other specialised components could be made locally.

The payload of the vehicles is from 1½ tons to 3 tons, an area which Land Rovers have obviously failed to exploit. In from nearly 41,500 to under fairness to British Leyland, this 33,800. Output was also down,

is due to Rover's conservative from 52,800 to 48,800 in round figures. Nor did Range Rover do any better. Europe was spiralling down from 3,700 to 3,200. Nevertheless, although output was down by nearly 1,000, at under 10,000, total exports dropped by only 700. Not a very significant comparison, perhaps, but indicative of how much better exports could be, with a more consistent output, always providing of course the home market can be successfully defended. It has already had its nose put out of joint in some export markets: and at home by its own workforce.

Much will depend on whether the State-owned giant will be able to take the workforce along with it in the integration with nearby Triumph and so persuade the National Enterprise Board to cough up again with £249m. It can hardly go unnoticed that a different government department is backing the simpler, newer concept of Stonefield Motors.

Peter Cartwright

The reasons for this fall away are not difficult to discover. The creeping devaluation of the pound reduced their price competitiveness. British made chassis (the Leyland Sherpa, for example) have been improved in suitability and quality. And the all-British coach-built caravan—the kind that is high enough to walk about in—may now be as cheap or even cheaper than a converted VW panel van with elevating roof.

Order

Due to the decline in sales in their home market, British caravan builders have been looking overseas. Devon Conversions of Sidmouth, who build only on VW chassis, have exported more than 900 vehicles to Belgium and France in the past two years. Their latest order was for 100 vans, based on the air-cooled VW Kombi, to be supplied to the French VW importers. It was worth nearly a quarter of a million pounds to Devon.

Paradoxically, while there have been clear signs that motor caravan buyers have been trading down toward smaller and cheaper vans than they used to buy, interest has also been building up in the biggest coach-built vans. These are the over 2½ ton vans, based on commercial chassis like the larger Ford Transits, Bedford and the front-engineered, liquid-cooled Volkswagen LT. Buyers are often retired professional men, planning a 1977-style grand tour before settling down to golfing and gardening. Devon Conversions expect to sell between 80 and 100 of these £7,000-plus machines this year.

There would appear to be considerable prospects for British-made motor caravans in the American market, especially if President Carter's energy conserving legislation really bites. To-day, the average U.S. camper has a massive, "gas-guzzling" V8 engine, giving a fuel consumption of 10 mpg or less, and a body filled with bungee comforts like air-conditioning, four-burner cookers with extractor hoods, central heating, flush lavatories and showers.

The American motor caravaner will be unwilling to give up his amenities but may well be persuaded to buy a more compact van with lower running costs. This is an area in which British motor caravan makers and converters, with their long experience of putting quarts into pint pots, could be expected to profit.

Stuart Marshall

## Caravans: quarts into pint pots

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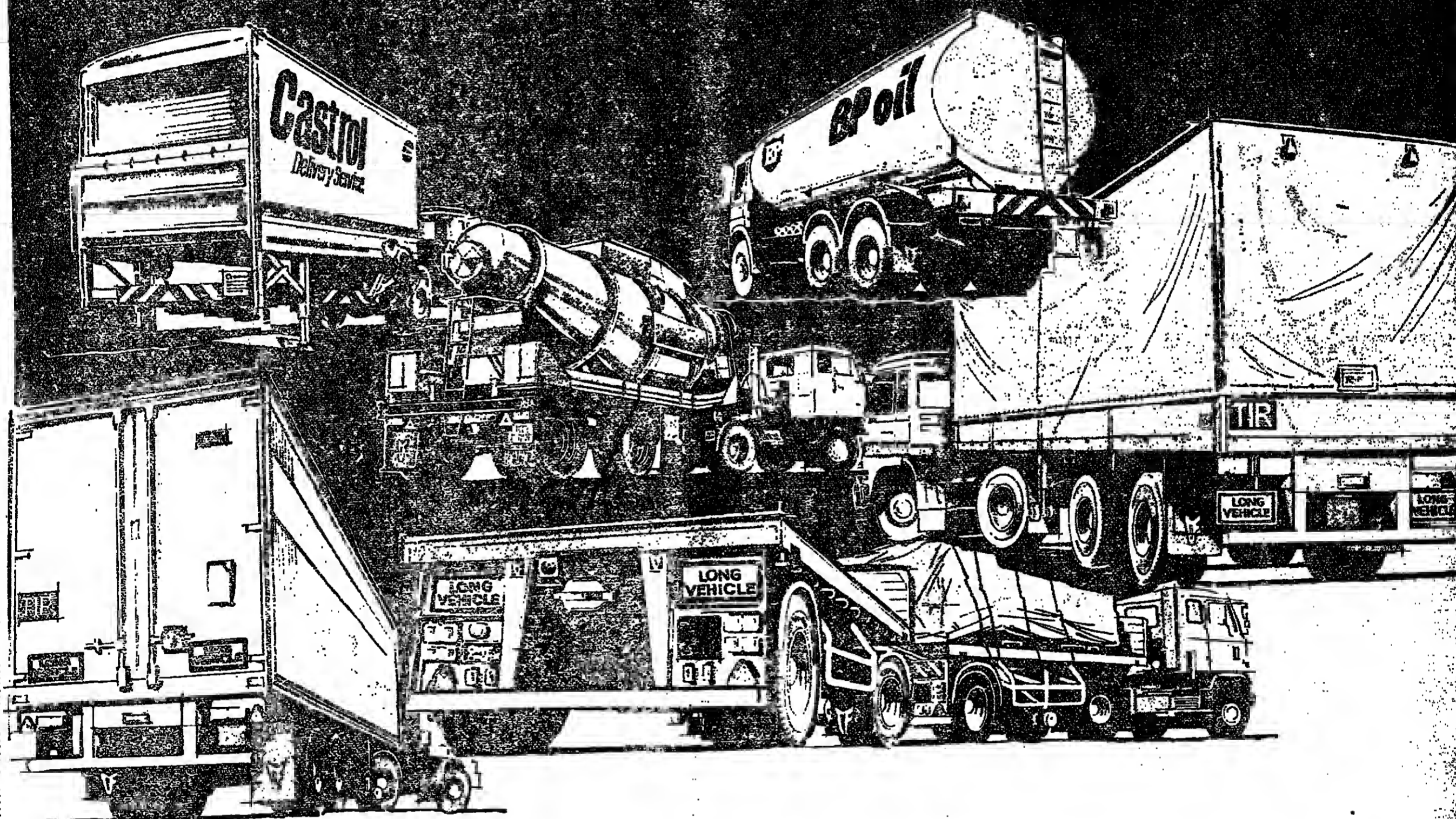
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# Carving up the Antarctic wealth

By HUGH O'SHAUGHNESSY

Antarctica has some 90 per cent. of the earth's usable fresh water; has the world's largest reserves of protein in the form of fish, krill, and other marine life; some of the biggest deposits of coal and iron ore on earth; very large quantities of oil and natural gas; and possibly big quantities of plutonium, copper, nickel, gold, cobalt and other rare metals

ANTARCTICA has been described as "the coldest, driest, highest, windiest, least accessible, worst known and generally most unpleasant of all the seven continents." Up to now it had the advantage of being the least political continent, a place where the scientist called the shots.

But the reign of the scientist is coming to an end and the pressures of international politics are being exerted on the continent as this month's meeting in London of the Antarctic Treaty powers will surely demonstrate.

The Antarctic Treaty was signed in 1959 and came into force two years later after the 12 original signatories—Britain, the U.S., the USSR, France, Norway, Japan, Australia, New Zealand, South Africa, Belgium, Chile and Argentina—had ratified it. Coming after half a century of desultory jockeying for position by the countries which considered they had a stake in Antarctica, the Treaty imposed an atmosphere of calm. It put the region out of bounds for military purposes, banned the dumping of nuclear waste and the explosion of nuclear devices, provided for the exchange of scientific knowledge and the freedom of scientific investigation.

It also stopped increasing hostility between Britain, Argentina and Chile whose territorial claims in Antarctica at one point all overlapped.

As the years went by the Treaty won increasing recognition as a far-sighted and imaginative diplomatic instrument through which the member states were able to show that they could lay national appetites for power and influence on one side and co-operation in scientific endeavour on the other.

It attracted nine other signatories—Poland, Czechoslovakia, Denmark, the Netherlands, Romania, East Germany and Brazil—when were given something less than the full consultative status attaching to the original 12, but who were able to hark in the membership of an exclusive and well-regarded club.

There is no doubt that the success of the Treaty was in some large measure due to the

fact that the Treaty powers got little in concrete terms out of Antarctica and in many cases were involved in heavy expenditures to keep their flags flying to the region.

To-day, a decade and a half later, the climate has changed. A world which has been made conscious of the limits of availability of natural resources and learned from the scientific work carried out under the aegis of the Treaty of the large mineral and fishing potential of the region has become impatient to modify the regime of the Treaty.

## Ross Sea find

Now that there is clearly something to be got out of Antarctica, besides expensively sought prestige, many governments are waiting to make sure of a piece of the action and to decide what they regard as the costs of going to Antarctica.

The size of the resources in the area south of the 60 degree line are huge. In the waters off Antarctica live immense shoals of fish and swarms of krill, a shrimp-like creature, which are said to constitute the largest untapped source of protein left in the world. Traces of gas have been discovered under the Ross

Sea and there is a very great likelihood that there are huge quantities of oil. A U.S. Geological Survey Report in 1973 suggested that 150m. barrels of oil could be won from the Ross, Weddell and Bellingshausen seas, not to mention 115 trillion cubic feet of gas. The USSR has said that there could be more oil in Antarctica than in Alaska. There is also thought to be the largest coalfield in the world and one of the biggest deposits of iron ore, although both of these are of low grade. It is very likely that there are deposits, too, of rarer metallic ores, not to mention the 50 per cent. of the world's usable fresh water held in the region's ice. A share in the control of these assets—even though they may not be exploitable for some years to come—is obviously a prize worth some considerable diplomatic effort. That effort is now beginning to be mobilised, not least in the Third World.

The Third World countries are not in the least abashed by the fact that few, if any, of them have experience in the Antarctic or could finance or man an effort to obtain such experience. Drawing on the experience they gained in negotiating with the developed countries in the Law of the Sea conference, where they achieved agreement on the principle that the benefits of deep sea mining should be distributed among countries which themselves have no possibility of participating in the mining operations, some developing countries are making initial statements of claim.

At a recent seminar on Antarctica organised in London by the U.N.-funded agency Earthscan, Mr. Christopher Pinto, a Sri Lankan diplomat who was vice-president of his country's delegation to the Law of the Sea

conference, delivered a warning that Third World countries would not be satisfied if the development of the Antarctic was left exclusively to the Antarctic Treaty powers.

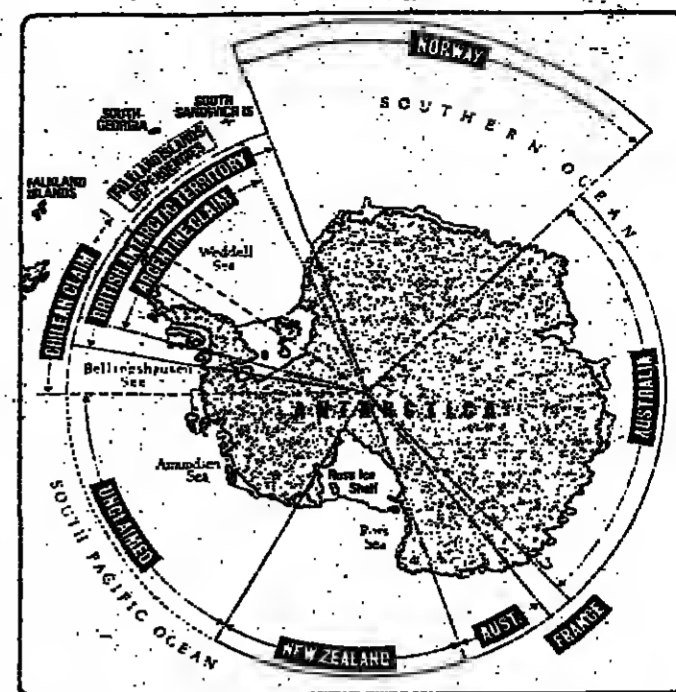
Antarctica's resources, he said, should be "made subject to a regime of rational management and utilisation to secure optimum benefits for mankind as a whole and in particular for the developing countries in accordance with appropriate global international arrangements, and within the framework of the new international economic order."

Calls like Mr. Pinto's are more than likely to herald a concerted push by the non-Treaty countries, particularly the Third World countries, to get a share—recognised in international law—of the benefits of Antarctic development.

## Exploitation

Meanwhile the Treaty countries themselves will this month want to decide whether they want to modify the present Antarctic regime in the face of the impending challenge and, if they do, whether they can come to terms among themselves on what such modifications should be. Also they will want to decide what to do about the pressures from within their own countries from those interests which want to start exploiting the region now.

The exploitation of krill, having for long been lauded off by Western commercial companies as unattractive, and abandoned to the Russians and the Poles, is now being taken more seriously since the West Germans recorded more than 20 tonnes an hour from an experimental fishing vessel, BP Proteus, and Unilever have both been mentioned as having



He rejects the principle, in favour of the establishment of an "enterprise" run by the Treaty powers which would attract private capital and technology for mineral projects and control any consequential environmental pollution. The enterprise would be open to participation from any government or private party.

It is likely that political debate about Antarctica will increasingly centre on finding a compromise between the unregulated application of the principle of "common heritage" which could give every country, from San Marino to Upper Volta, a say in Antarctica and a closely defined "enterprise" which would concentrate increasingly intense the benefits of Antarctica in the hands of those few countries and corporations with the technology to start exploiting the region.

One extreme probably would produce administrative chaos and would hardly attract competent investors. The other extreme would be unacceptable to the majority of the world's governments which want the resources of Antarctica more widely shared. Whatever solution is finally agreed about the sharing out of the riches of the Antarctic, it is clear that the region is becoming a political and a closely defined "enterprise" which would concentrate increasingly intense the benefits of Antarctica in the hands of those few countries and corporations with the technology to start exploiting the region.

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## Industrial relations

From Professor Innis Macbeath.

Sir—Joe Rogaly's thoughtful article (August 28) contains a significant slip. The provision in the law that dismissal of workers on strike shall be fair unless there is discrimination in taking them back has nothing to do with the Government's being besetted with the TUC. It was first introduced in the Industrial Relations Act, 1971, in an attempt to avoid "wreathings about something that has defied neat juridical definition: the relationship between employers and employees on strike."

Reliance on ACAS, equally, is an attempt to avoid litigation about bargaining in good faith and about simple-majority ballots which constitutes so much of American labour law. Experience in the operation of the Industrial Relations Act had already indicated how tiresome such argument might be. The new legislation here favours unions not in its mechanics but in the privilege of access.

Union recognition presents problems of transition. So does new legislation. The particular Grousewood combination of improbabilities, a readily published location and doubts about settled law is unlikely to recur. No doubt similar oddities will come up from time to time, but it is unhelpful to put too much weight on single cases, especially when the parties are—or a party is—unexperienced and obdurate.

Inis Macbeath.

1, Broadhurst, Ashted, Surrey.

Economics of disillusionment

From Mr. W. Grey.

Sir—Following Anthony Harris's "disillusionment" with (economics in general and economics in particular (Sept. 1), one does not wish to lay it too thick. But there seems to be a still graver cause of "over-simplification" than that "an economic model can be used to deal in those quantities which can be measured numerically, and which have been measured for a considerable time past, or even that that an economy can hardly be predicted with any complex mathematics."

Many in the industry tend to oversimplify the problems initially with the result that costs tend to exceed estimates, also we have in the past given free technical knowledge in the form of design proposals, etc. in order to get business. There are many other examples which tend to depress living standards.

In pursuing Mr. Gregory's thinking I suggest that Special Purpose Design Engineers be added to the list for without a greater supply, we cannot hope to build the special equipment needed to revitalise our country and reduce unemployment.

W. H. Whitehead.

Whitehead Engineering, Bideford, Devon.

## Letters to the Editor

those used by Government statisticians to compile their own "sensitive" index of leading indicators. Has that index, throughout its long and distinguished history, ever been entirely free from criticism and rivals, or honestly claimed to be more than an approximation? When, finally, we come to the gross domestic product, seasonally adjusted, let alone to international comparisons, we have a country's gross domestic product, also adjusted for currency factors, and another's, one's mind simply boggles at the possible margin of error.

Should we then throw up the sponge and succumb to Mr. Harris's temptation to "turn to pottery and subsistence farming" instead? Not at all. Let us cherish the statistics we have, add let us have more of them. Only let us take even the heat with a pinch of salt and, above all, healthy distrust economic statisticians of all colours or ones who, employing the most complex mathematics erect on them the most magnificent-looking superstructures—ostensibly accurate to the last decimal point. Who, one wonders, precisely is fooling whom?

W. Grey.

12, Arden Road, Finchley, N.3.

## Supply of engineers

From the Chairman, Whitehead Engineering.

Sir—As another chartered engineer who also employs others I can understand Mr. Gregory (Sept. 1) and a great many other engineers, feeling that the pay is so low (relatively to less demanding jobs) that there cannot be much demand, except as he says, in chemical engineering.

I suggest he is making a wrong assumption. Skilled engineers, and mechanics as well for that matter, are in short supply and by common consent the industry needs more.

I believe that engineering industrialists and engineers themselves are to blame for our low value in the market place but it would appear that at long last we are waking up to the fact that society does not owe us, employers and employees alike, a good living and that we must demand and get more for our services.

Many in the industry tend to oversimplify the problems initially with the result that costs tend to exceed estimates, also we have in the past given free technical knowledge in the form of design proposals, etc. in order to get business. There are many other examples which tend to depress living standards.

In pursuing Mr. Gregory's thinking I suggest that Special Purpose Design Engineers be added to the list for without a greater supply, we cannot hope to build the special equipment needed to revitalise our country and reduce unemployment.

W. H. Whitehead.

Whitehead Engineering, Bideford, Devon.

Contracting in or out

From Mr. C. R. I. Estridge.

Sir—It is certainly the case that the employer has a most difficult choice to make when deciding whether to contract in or out of the new State Scheme. Subsequently he is faced with the difficult consultative process with Union reactions thereto.

The figures prepared by the Legal and General show that with their existing clients the trend of advice is strongly towards contracting out.

## Money where mouth is

From Mr. K. P. Williams.

Sir—Mr. Chalmers (September 1) makes the most interesting and sensible suggestion that Government Ministers and Economists should, as a requirement for accepting office, hold their personal investments in undated Government stock. Directors, again, often enough been criticised for their small personal stakes in the companies they run. It would be instructive to know what proportion of their wealth (and Government Ministers today all seem to be wealthy) regardless of their original source, is invested in the country's common stock which they run. It would be instructive to know what proportion of their wealth (and Government Ministers today all seem to be wealthy) regardless of their original source, is invested in the country's common stock which they run.

K. P. Williams.

4, Woodthorpe Road, Putney, S.W.15.

## Parking in city centres

From the Secretary, Movement for London.

Sir—I hope Mr. Harley Sherlock (Letters August 31) will excuse me if I do not join him in praising the bureaucrats for inventing a scheme for supplementary licences for the Central London traffic. We should be grateful that the politicians who condemn for failing to "grasp this nettle" refused to do so for the sound reason that an London's present parking work it would have stung commercial activity badly—and thus eventually the rate-producing capacity.

Although supplementary licensing does look as though it has finally been buried, the bureaucrats—this time at the Department of Transport—are continuing to promote questionable schemes. The latest is to allow local authorities additional powers to control off-street parking, including a tax upon the use of private office or factory car parking spaces.

The Department have followed up the proposal made in the recent Transport White Paper with a "consultation paper" on this topic. Sadly they appear not to have published this consultation paper, with the result that many to whom such a scheme would apply are still not aware of it and its implications for business life.

If the proposals are implemented as they stand, a new tax will be placed upon every vehicle which may at some stage need to park in an office car parking space in the restricted areas (presumably city centres).

The consultation paper does allow for certain exceptions: "genuine" commercial vehicles; disabled persons' vehicles; those used by workers when (but not where) public transport is not available; and "essential" other essential operational vehicles.

Quite what is meant by this latter category is not made plain, but judging from the tone of the paper it is unlikely to be reasonably interpreted.

## GENERAL

TUC annual conference opens, Blackpool. Unemployment and pay lobby expected in morning and Grunwick strike committee lobby in afternoon.

Prime Minister visits Liverpool on last day of Scottish tour.

Civil Aviation Authority hears application by Laker Airways for its Skytrain to land at Gatwick Airport.

Advertising Standards Authority issues new code of practice. President Tito of Yugoslavia continues visit to China.

Mr. John Silkin, Minister of Agriculture, visits Australia. Mr. Roy Hattersley, Prices

## To-day's Events

Secretary speaks at British Carpet Manufacturers' Association dinner, Harrogate.

"Windscale" public inquiry resumes, Whitehaven.

British Association for the Advancement of Science annual meeting continues, Aston University, Birmingham (until Sept. 7).

Sir Monty Finniston opens exhibition of products and services of 11 East Kilbride industrial companies at Scottish New Towns London Office, 18, Cockspur Street, London, W.1.

Prices spur Stizel, SW1 (until Sept. 13).

## OFFICIAL STATISTICS

Public sector borrowing requirement and details of local authority borrowing (2nd quarter) from Central Statistical Office.

COMPANY RESULT Decs (full year).

COMPANY MEETINGS See Week's Financial Diary on page 8.

EXHIBITIONS London and the Thames Exhibition, including works by Constable, Canaletto, Gainsborough, Turner and Whistler, E.C.4, 7.30 p.m.

the Fine Rooms, Somerset House, Strand, W.C.2 (until October 9).

Change and Decay—the Future of our Churches, Victoria and Albert Museum, South Kensington, S.W.7 (until October 16).

Exhibition of 230 drawings and sketches by Peter Paul Rubens, British Museum, Bloomsbury, W.C.1 (until October 30).

BALLET London Festival Ballet dance Sanguine, Fanny Scheerzade, and Graduation Ball, Royal Festival Hall, S.E.1, 7.30 p.m.

Korean National Dance Company, Sadler's Wells Theatre, E.C.4, 7.30 p.m.

# Number 1 in Europe Crane Fruehauf

Crane Fruehauf Limited, Hayes Gate House, Uxbridge Road, Hayes, Middlesex. Tel: 01-848 0225 Telex: 282051

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# COMPANY NEWS

## Laird expands to £4m. after six months

First half 1977 taxable profits of Laird Group were ahead from £3.37m. to £4.01m. on turnover of £59.35m. against £48.97m.

The company's wholly owned subsidiary Scottish Aviation was nationalised on April 28, 1977, and its results are excluded. The terms of compensation have yet to be negotiated.

An interim dividend is raised to 1.46p (1.31p) net per 25p share, payable on December 3. Total for 1976 was 2.85p from profits of £5.04m. with the final 1.32p having been adjusted to 2.47p net per share. A total of 2.97p is forecast for 1977.

The chairman comments that the rise in turnover of about 15 per cent is due mainly to inflation and does not show a real upturn in trade.

Meeting, Sheffield, on September 29, at noon.

The six month tax charge consists of ACT £300,000 (£250,000).

The group is involved in metal to metal support engineering, motor components, and other engineering and shiprepairing.

See Lex

## Wm. Cook confident and investing

Though wages and costs continue to mount at an alarming rate, steel castings manufacturers William Cook and Sons (Sheffield) is in a position to face the difficult future with quiet confidence.

At present there are signs of an improvement in the demand for steel castings but it is too early to say that this upward trend has a chance of being maintained.

Despite poor trading conditions the company is still installing capital plant to be ready to meet increased trade when it takes place, he says. Further plant will be installed during 1977-78 but always in line with the company's financial stability, he adds.

Capital commitments at year end March 31, 1977, totalled £107,800 of which £90,000 has been authorised but not contracted.

For 1976-77 taxable profit was £3.37m. on turnover of £59.35m.

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marginally up at £243,540 (£236,078) on sales of £2.96m. (£2.81m.). The net dividend is stepped up to 1.55p (equivalent 1.35p) per 20p share.

At year end cash at bank and in hand was up at £11,221 (£1,097) and bank overdraft was £16,224 (£109,293).

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## BOARD MEETINGS

The following companies have notified dates of Board meetings to the Stock Exchange. Such meetings are usually held for the purpose of considering dividends. Official indications are not given as to whether dividends are expected or not. Dividends shown below are based on last year's results.

Interim—Cambridge Electric and Light Co. Ltd. (1977) Sept. 14

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# FINANCIAL TIMES SURVEY

Monday September 5 1977

## THE CARPET INDUSTRY

The British carpet industry is not only the biggest in Europe, it is also a comparatively rare story of post-war industrial success—and all the indications suggest that prospects for the future may be even brighter than past performance.

### Scenario

### Other success

### David

THE CARPET industry is in its yearly selling season. The opening of its Harrogate exhibition is now familiar question over its performance on the basis of its export and innovation, as seen as a model of British industry. The shadow of the important Bond up still present, are deriding weaknesses. It yet make it value. The other industrial face of intense competition? Industry represents a comparatively few British industrial ones. For a variety of other reasons, the British has been big carpet. And Germans now head usage of carpet per population. Britain

remains one of the leading world manufacturers. Indeed, in the past two years Britain has come to replace Germany, another country with a strong tradition of carpet making, as the largest manufacturer in Europe, producing 181m. square metres of carpet last year—18m. square metres more than the German industry.

Britain again has been among the pioneers in Europe of many of the developments which have made possible the very rapid growth of carpeting worldwide in recent times. Britain has been a leader in the development of the high volume tufting process, which has brought carpeting within the reach of many more people, and produced the wall-to-wall carpeting revolution. The later technical development of printed carpets, which again helped to keep costs down and to make possible a further broadening of the carpet market, also started on this side of the Atlantic in the U.K. and Britain remains by far the largest producer of printed carpets in Europe.

Moreover, although the U.K. has pioneered many of the developments in tufting and printing, it retains the largest woven carpet-producing industry anywhere in the world, more than half as large again as the Belgian woven industry, its nearest competitor. The industry has, furthermore, maintained a high level of investment in tufting and weaving, and exports more than 20 per cent. of total output annually. While yielding less than 10 per cent. of the \$540m. home market to imports,

UK CARPET SALES												
	HOME MARKET				EXPORT MARKETS				TOTAL			
	(000m <sup>2</sup> )	%	(£000'000)	%	(000m <sup>2</sup> )	%	(£000'000)	%	(000m <sup>2</sup> )	%	(£000'000)	%
Axminster												
1972	32,793	26.7	95,127	38.2	6,333	28.9	11,833	36.6	40,329	27.0	109,960	38.0
1973	31,265	23.7	103,296	38.0	7,164	21.5	21,337	34.0	38,829	23.9	126,543	35.6
1974	25,551	21.1	101,080	32.6	8,873	24.0	29,393	35.1	34,424	21.9	130,681	32.2
1975	27,483	20.7	122,036	33.8	7,120	25.1	26,336	33.7	34,603	21.5	148,372	34.1
1976	25,713	19.1	133,030	33.8	4,487	18.9	31,737	30.9	33,210	19.0	167,767	33.2
Wilton												
1972	11,983	9.5	40,219	16.2	1,821	8.1	5,180	12.8	13,801	9.2	45,429	13.7
1973	11,338	8.6	47,780	16.2	2,716	8.1	8,159	13.0	13,871	8.5	55,929	15.7
1974	9,412	7.8	47,119	15.1	2,301	8.0	10,373	12.3	12,316	7.8	57,992	14.7
1975	8,932	6.7	49,604	13.8	1,942	6.8	7,892	10.7	10,877	6.7	57,496	13.2
1976	5,652	3.7	43,737	11.1	4,416	11.2	17,848	15.9	9,498	3.5	61,565	12.2
Tufted												
1972	74,553	58.3	100,967	40.6	12,308	59.9	18,991	46.9	28,063	59.0	119,956	41.5
1973	82,409	62.3	125,276	42.8	20,195	65.4	31,781	50.6	50,204	62.9	157,057	44.2
1974	79,409	65.3	142,577	47.0	23,385	65.0	41,883	49.6	60,804	65.4	187,460	47.5
1975	90,453	68.2	173,116	47.9	19,009	67.0	38,872	52.5	59,462	68.0	211,988	48.7
1976	98,713	73.1	198,553	50.4	27,071	68.4	57,829	51.4	72,074	72.0	256,582	50.7
Annual Totals*												
1972	126,775		248,640		22,554		40,322		149,329		289,162	
1973	131,692		282,593		30,895		62,773		162,590		355,366	
1974	121,195		309,787		36,018		84,424		157,213		394,211	
1975	132,711		361,114		28,384		74,102		161,095		435,216	
1976	135,017		392,720		39,593		112,422		174,612		506,142	
* Including sundries.      Source: Department of Industry.												

\* Including sundries.

Source: Department of Industry.

In many cases still run by the families which founded the constituent companies two or three generations ago, the industry can therefore claim to be the most varied in shape and size in Europe, exceeded only in volume production by where in the world by the U.S. Some of the largest groups have a product range which encompasses a large number of tufted and woven carpets, and others specialise in specialist tufted and cheaper needlefelt products, while others have grown largely as a result of the very rapid development of

tufted sales, now accounting for around three-quarters of total volume output. The industry, which is concentrated in four main geographical areas—Kidderminster in Worcestershire, the traditional woven carpet manufacturing centre, Yorkshire now the main tufting centre, Scotland, and Northern Ireland—also consists of a large number of medium and smaller concerns operating in specialist niches of the market. The industry, largely because of its small size, has traditionally enjoyed exceptionally good labour relations. Although the £1.80 per square metre were total number employed has actually down 6 per cent. at dropped some 8,000 since 1972 the end of 1976 on the figure to the present level of around at the start of the previous year, 35,000, it is hoped it can now dispense substantial rises in the stabilise at around this level. costs of raw materials, labour But while the industry, in contrast with most other textile sectors, has enjoyed a period of rapid growth and year period to the end of 1976 success, it has been operating return on capital employed for at least the last three years among 60 leading companies against a background of weak, fell from an average of 21.5 and, in some cases, declining per cent. in 1973-74—the industry's last good year—in 5.4 and, in some cases, declining per cent. in 1975-76 and a U.K. where half total European manufacturers' prices at around number of companies made

losses. Though figures are not yet available in comparable form for the most recent year, which did see some recovery from the recession of 1974 and 1975, the position is likely to have improved only marginally. The decline in consumer spending on carpets throughout Europe is to a large extent to blame for the industry's price problems but even with a return to more buoyant economic conditions difficulties would remain. The industry was able to grow rapidly in the 1960s and 1970s largely because, with cheap tufted products becoming available, manufacturers were able to open up new markets where carpeting had previously been considered too expensive. The industry is now, however, having to absorb very substantial increases in capacity, particularly in printing, at a time when growth, as experienced in the past, seems unlikely to return.

The reasons for this are complex. The public has not only had less money to spend as a result of the recession but a shift in spending patterns has also taken place, with consumers throughout Europe finding they need to spend more to keep up with higher costs of transport, food and other goods. Leisure activities are also taking a bigger share of the family budget. With substantial new capacity overhanging the market, the result has been cut-throat competition, and a sizeable reduction in the size of the industry in some countries, including Germany, has occurred. In the U.K., where half total European tufted capacity is in

stalled, there are now estimated to be around 25 printers each capable of producing 5m. square metres a year to a domestic market capable of absorbing only half that amount. Nor are there signs of a return to much more than a modest rate of growth in the foreseeable future. In Europe total sales of carpeting are expected to be at roughly the same level this year as last and in the U.K. most leading manufacturers report sales broadly parallel in the first six months of 1977 with the same period of 1976, with trade falling away more sharply than usual in June and July.

Some signs of an upturn—perhaps helped by the cold weather which has sent people into the shops—have been seen recently, but leading industry spokesmen are cautious over future prospects. "The days have gone when the industry was carpeting new areas of houses and public buildings. Nor is there very much chance that housing starts in Europe will recover in the short term to the levels set in the early 1970s. The industry has to accept that it is largely in the replacement business, and must make sure it has the right quality and range of products to meet this demand," Mr. Michael Abraham, chairman of Associated Weavers, the biggest tufting group, and vice-president of the British Carpet Manufacturers' Association, points out. It is a situation which presents the U.K. industry with opportunities as well as problems and its response is likely

CONTINUED ON NEXT PAGE

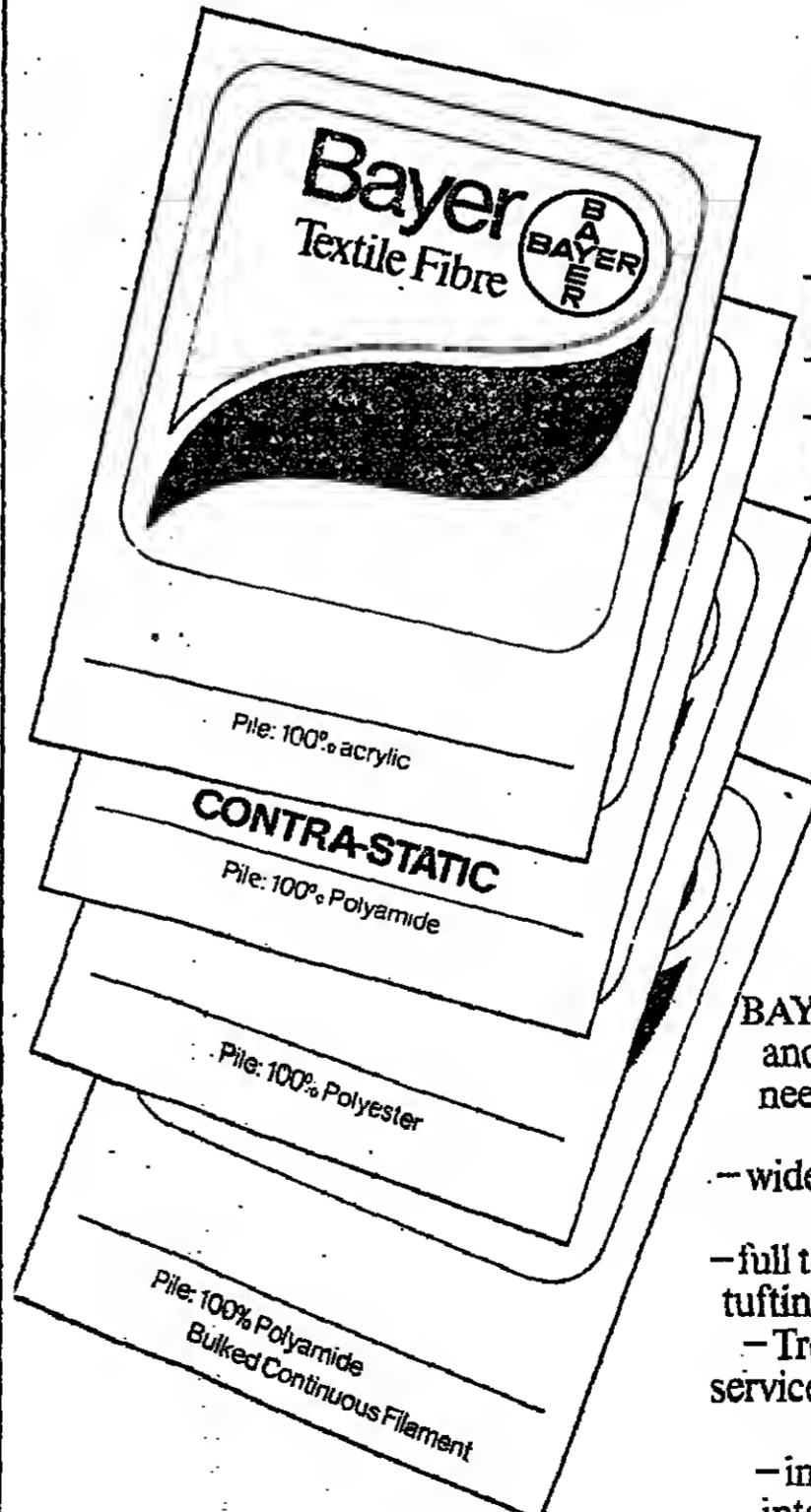
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THE BRITISH carpet industry's stated intention to reach an export target of £150m. by the end of this year, despite a setback caused by the economic recession, appears to be an ambition which in uncertain times will commendably be achieved.

Had this been envisaged in 1975, at a time of uncertainty and changing market conditions when exports totalled less than half this figure, such a suggestion would have appeared optimistic to say the least. However, this success should also be seen in the context of a less buoyant home market which has suffered from declining profit margins.

The key factor in export markets in recent years has been the relative importance of EEC markets compared with Commonwealth and former Commonwealth countries, and the industry has regarded a better export performance in Europe as an essential ingredient for future profitability. In this respect the most recent figures provide much encouragement: despite a great deal of recent fluctuation, sales to Commonwealth countries have risen from £14m. in 1975 to £22m. last year, and reached £14m. in the first six months of this year.

Over the same period, exports to the EEC have grown strongly from a figure of £31m. in 1975, to £48m. last year and £33m. in the first six months of 1977. As had been predicted, West Germany has been the key to this success, with sales there rising from £6m. in 1975 to £11m. last year and £9m. in the first six months of this. At the

same time there has been strong growth in almost every other EEC market in the first half of this year.

On the other hand there has been little sign of a take-off in the EFTA countries, with sales running steadily at around £17m. in the past two years, but volume declining slightly. Other growth markets include the U.S. and to a lesser extent Japan, but the Middle East has continued, like in other industries, to provide a bonanza. Sales there have soared from £5m. in 1975 to £13m. last year and could top the £20m. mark by the end of this year.

## Increased

According to the British Carpet Manufacturers' Association, total exports in the first six months of this year increased over the corresponding period of 1976 from £18.8m. square metres to 24m. square metres, and in value from £51m. to £73m. This represented a 28 per cent. rise in volume and a 43 per cent. increase in value.

It is clear that this success owes something to the relative stability of costs in Britain over the period and the attractions for foreign buyers created by the value of sterling, so much now depends on the overall economic climate prevailing both in Britain and in buyer countries, particularly in Europe. It is likely that costs will rise more rapidly in the near future, but the recent success in export markets has done much to establish British products abroad and thus may well offset any price reaction.

As the federation pointed out recently, the development of individual export markets in 1976 provides some interesting comparisons with the previous year.

In volume, exports increased

## PRODUCTION AND CONSUMPTION OF CARPETS AND FELTS 1972-1976

(000 sq. m.)

	PRODUCTION					CONSUMPTION			
	1972	1973	1974	1975	1976	1972	1973	1974	1975
Germany	162,403	179,492	167,570	160,652	163,500	190,782	208,038	196,321	195,572
France	46,585	51,340	49,959	48,120	49,111	57,597	68,750	72,297	80,204
Italy	n/k	10,957	12,135	13,870	15,675	n/k	17,762	19,932	16,501
U.K.	125,211	133,697	158,069	165,614	181,216	110,975	112,768	131,881	146,223
Belgium	82,165	104,274	113,922	131,779	155,896	19,073	28,369	33,441	32,495
Netherlands	40,421	45,500	49,453	42,756	43,514	51,336	40,800	41,168	38,292
Austria	10,798	14,026	14,213	14,797	15,262	20,363	19,027	15,056	15,834
Sweden	n/k	10,422	11,107	8,427	7,727	n/k	25,774	19,711	19,019
Denmark	n/k	15,611	n/k	18,950	25,220	n/k	14,424	14,708	14,153

	IMPORTS					EXPORTS			
	1972	1973	1974	1975	1976	1972	1973	1974	1975
Germany	57,795	62,784	64,004	65,918	78,135	29,416	34,338	35,243	30,998
France	21,319	29,001	34,332	41,709	52,607	12,307	12,091	11,995	9,625
Italy	n/k	11,484	12,603	8,227	11,574	n/k	4,679	4,806	5,595
U.K.	7,626	9,368	9,824	8,979	15,199	21,862	30,277	38,012	28,370
Belgium	8,220	12,653	15,467	12,850	15,493	71,312	87,958	95,948	111,124
Netherlands	25,100	26,400	26,998	24,996	27,378	22,700	31,300	34,495	28,625
Austria	10,810	9,766	8,258	7,933	10,016	6,306	4,765	7,223	6,801
Sweden	n/k	18,939	13,507	13,890	15,177	n/k	3,587	3,730	3,298
Denmark	n/k	5,584	n/k	9,688	13,382	n/k	9,771	n/k	14,495

n/k = not known.  
Source: C.I.T.T.A. (European Carpet Manufacturers Association).

by more than 36 per cent. to Commonwealth countries and by some 52 per cent. to the Middle East, but fell by some 11 per cent. to EFTA countries. Particularly heartening, it suggested, was the success in tufted carpets in Commonwealth areas and the EEC, almost double the 1975 sales in the case of the former and more than 50 per cent. up in the latter. Less encouraging perhaps, in view of the inflation rate, was the fact that the average export value of a square metre of carpet in 1976 was £2.84, an increase of just under 9 per cent.

Similarly, returns on domestic sales must be considered. Mr. M. D. Aykroyd, the new president of the federation, suggests that in the industry profit mar-

gins, which diminished in 1976, will have to widen if reinvestment so vitally needed to ensure a healthy future is to take place.

"This industry, whose products are the best in the world, and tailored to meet any form of consumer demand, must maintain a strong home market and this is not going to be helped by the limited amount of new buildings," he said. This underlines the feeling that to be competitive in export markets, the industry must maintain a strong home base.

Looking further ahead, Mr. Aykroyd also suggested that the construction of air-conditioned buildings in tropical countries, together with the newly acquired affluence of many of them, will provide opportunities which, with high quality, excel-

lence of design and price competition, should make for increased exports.

Looking now at the export performance of the various sectors of the industry, the importance of the EEC was also stressed by Mr. D. B. Sullivan of ICI Fibres in a report in October last year. He pointed out that the vast majority of carpet imports to the EEC are purchased from other EEC countries and that the U.K. has captured little of this trade.

## Major

Germany, he says, stands out as the major market, accounting for more than half of the Continental EEC imports, but British manufacturers secure only about 5 per cent. of these sales compared with the Belgian manufacturers who hold ten times this share in the original EFTA in both tufted and woven sectors. In France, the second most important market, the U.K. share is even lower. "However, the degree of success in Holland, particularly on the woven side, suggests that success in the Continental markets does not present insuperable problems to the U.K. manufacturers," he said.

The diversity of the woven industry, he adds, and the advanced technology of the tufters in the U.K. together with the favourable raw material and labour costs should enable the British manufacturers to secure a greater share of the Continental market while retaining traditional "Commonwealth" and EFTA markets, provided that the choice of designs and methods of distribution meet the requirements of the local markets.

In the past decade Australia has been the major outlet for woven exports, with Canada generally in second place, reflecting the strong traditional

ties in culture and tradition between the two countries. But the pattern has changed considerably recent years with the influence of the EEC. In 1966 the EEC's for 27.4 per cent. of exports but had risen to 40.1 per cent. by 1975 and first while EFTA remained about 15-20 per cent. at around 50 per cent. these others Australia has fallen from 24.6 per cent. in 1966 to 16 per cent. Similarly the Canadian deteriorated from 15.7 to 7 per cent. while rose from 2.1 per cent. per cent.

Exports of tufted carpets showed a sharp 20-fold increase in value over the period from 1966 to 1975, passing woven carpets in 1972. The U.K. hold ten times this share in the original EFTA in both tufted and woven sectors. In France, the second most important market, the U.K. share is even lower. "However, the degree of success in Holland, particularly on the woven side, suggests that success in the Continental markets does not present insuperable problems to the U.K. manufacturers," he said.

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## Success

CONTINUED FROM PREVIOUS PAGE

to determine whether or not Britain can become not only the leading manufacturer in Europe but the principal supplier to other markets as well.

The industry has until recently concentrated its export efforts on wovens, and although tufted goods represent the bulk of volume output as recently as 1975 exports of tufted at £38.8m. were barely ahead of wovens at £34m. The industry has also tended to concentrate on traditional markets such as the old Commonwealth and Scandinavia and has made less of an impact in the EEC where the leading supplier is Belgium.

The past year has seen some signs of an export re-orientation with a big increase in volume sales of tufted to the EEC and impressive gains in newer markets such as the Middle East. The U.S. market is also being attacked particularly by the woven manufacturers, who, with the demise of the American woven manufacturing industry, can now offer buyers a unique top quality product. A number of U.K. companies have now begun to develop marketing networks in the U.S. either individually or as consortia and the U.K. is now represented in a number of the important U.S. carpet markets.

For the tufted manufacturers the main need is to achieve higher value export sales with the German groups also suffering from over-capacity and the Belgian, fighting for export

sales, prices have in fact fallen this year from levels which the industry already regarded as much too low. In this situation attention to the design requirements of particular markets and to delivery times is more essential than ever, the industry admits, and efforts are being made to improve on what has been a patchy performance in the past. For while a number of companies do pay attention to styling for the Continent, and in some cases have studios for this purpose in Europe, there has been a tendency to produce primarily for the U.K. market.

## Exposed

Though the industry has been successful in finding a market in Europe for the printed tufted goods which the British market accepts, there is now a realisation that these products are likely to remain exposed to competition from similar high volume Continental products in the lower end of the market, and moves are now being made by a number of producers to try and find other market segments where a premium for a specialty product can be obtained. Some companies, including Carpets International, the biggest U.K. group, and Shaw, a leading tufter, are placing their hopes on new generation printing equipment which it is hoped will enable them to offer tufted carpets which will much more closely resemble the traditional Axminster but at a lower price.

The industry has been slower in adopting other techniques which are likely to be as important in winning a share of the premium market in Germany and other main carpet-buying countries. In these markets use of new manufacturing techniques and of finer dyes together with speciality yarns able to produce special effects, is enabling local manufacturers to avoid cut-throat competition lower down the market.

If the industry can take advantage of these trends there could be a return to a period of better profits, though it is likely the rewards will be shared among fewer companies. In weaving, where the industry already has a unique market, most of the producers feel present levels of production can be maintained for the foreseeable future, there is likely to be a concentration on Axminster at the expense of Wilton. In tufting, however, rationalisation of capacity is seen as inevitable with smaller less efficient producers succumbing to the effects of prolonged price competition.

There has already been some re-grouping of the industry into larger units over recent years with the emergence of important groups like Carpets International, British Carpets, part of the Guthrie Corporation, and Yngvald. Outside groups, including Bowater, have also

moved into the U.K. carpet industry and a major textile group, Nottingham Manufacturing, now controls one of the leading tufters, Lanfester.

In Scotland, the Scottish Development Agency (SDA) has taken an interest in the sector by acquiring stakes in the Guthrie Corporation's carpet operation and in Melkie. The SDA move will enable Guthrie, which has lost considerable sums in carpets, to reinvest in new weaving equipment and to expand their tufting operation—moves which have not met with a wholly favourable response from other Scottish carpet groups suffering from the current intense competitive pressure in world markets.

There are now hopes within the industry that the easing of wages control and the turn-up in housing starts could stimulate demand this autumn. Few producers believe, however, that the U.K. market will offer more than a 2-3 per cent. per annum growth rate for the next few years. Nevertheless, as Michael Aykroyd, president of the BGMA and managing director of Firch Carpets, points out, a number of moves have been made over the past two or three years to ensure that the industry is better prepared to exploit export markets which it is hoped could be accounting for 30 per cent. of total industry output by 1986.

## Exhibition

"The industry is making major efforts in the U.S. and the goal of a permanent exhibition site in London at which U.K. and overseas buyers can look at what British carpet manufacturers have to offer may also soon be realised," Mr. Aykroyd points out. A group of 14 manufacturers is taking space in the old Derry and Sons building in Kensington, and there will be additional space available for exhibitions at which other companies will be able to participate. The project is expected to be in operation some time next year.

The two wings of the industry, the tufters and weavers, manufacturers have also come together within the past two years to form one trade body, the BGMA, and the industry is currently considering ways of stepping up the research effort undertaken on its behalf. Closer links have already been forged with design colleges and it is hoped this could lead to greater interest being taken by design students in careers in the industry. If the industry can make the most of these opportunities, then its size in Europe and its strength in all the main areas—woven and tufted manufacture, fibre engineering, printing and carpet machinery—could put it in line to capture a large part of Europe, and perhaps of the world.

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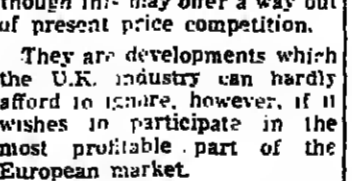
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"... product innovation not for the sake of change, but for sound financial reasons."

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Innovation has also been the order of the day in production techniques and Donaghadee has been in the vanguard of industry developments with a policy of continual investment in new areas of technology culminating in 1973 in the building at Blackburn, Lancashire, of the most modern carpet printing plant in Europe. The Company takes pride in the fact that the majority of its machinery, including the three print machines, is British made. In addition to progressive print/tufted carpet manufacture, Donaghadee also has a Wilton plant in Randalstown, Northern Ireland. Formerly part of the Old Bleach Organisation, the factory weaves traditional Wilton carpet for the domestic and contract market, producing broadloom and body carpet. The Company has been responsible for carpeting a number of notable public buildings, a recent one being the National Theatre in London.

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The rapid growth of the carpet industry over a relatively short period of time has inevitably brought with it major problems, particularly of over-capacity. Donaghadee Carpets believe that their performance during the most dramatic decade in the history of carpet manufacture augurs well for the future of the Company.

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## THE CARPET INDUSTRY VI

# Developments in machinery

THE WORLD depression, which has hit textiles particularly hard, has also had its effect on the machine building trade. In carpets there is generally felt to be an over-capacity in plant and this is reflected in the order books of the carpet machinery suppliers, although most are managing to maintain a flow without seriously cutting back on their labour force.

One of the machines that has generated immense interest is the new system of making patterned carpet known as Bondax. It is very much the concept of Bond Worth which in the past few weeks has been forced to call in the receiver. The Bondax system uses a classical Jacquard for its patterning and is as versatile in production as the Axminster looms it is likely to replace.

System of production is very simple, in that individual tufts of selected colour are inserted into a pre-coated primary backing. The adhesive is melted just before the tufts are introduced into it. The adhesive is coated on a beaming backing—so far nothing else has been used—by a system developed by adhesive manufacturer Evode and supplied direct to the carpet manufacturer in rolls.

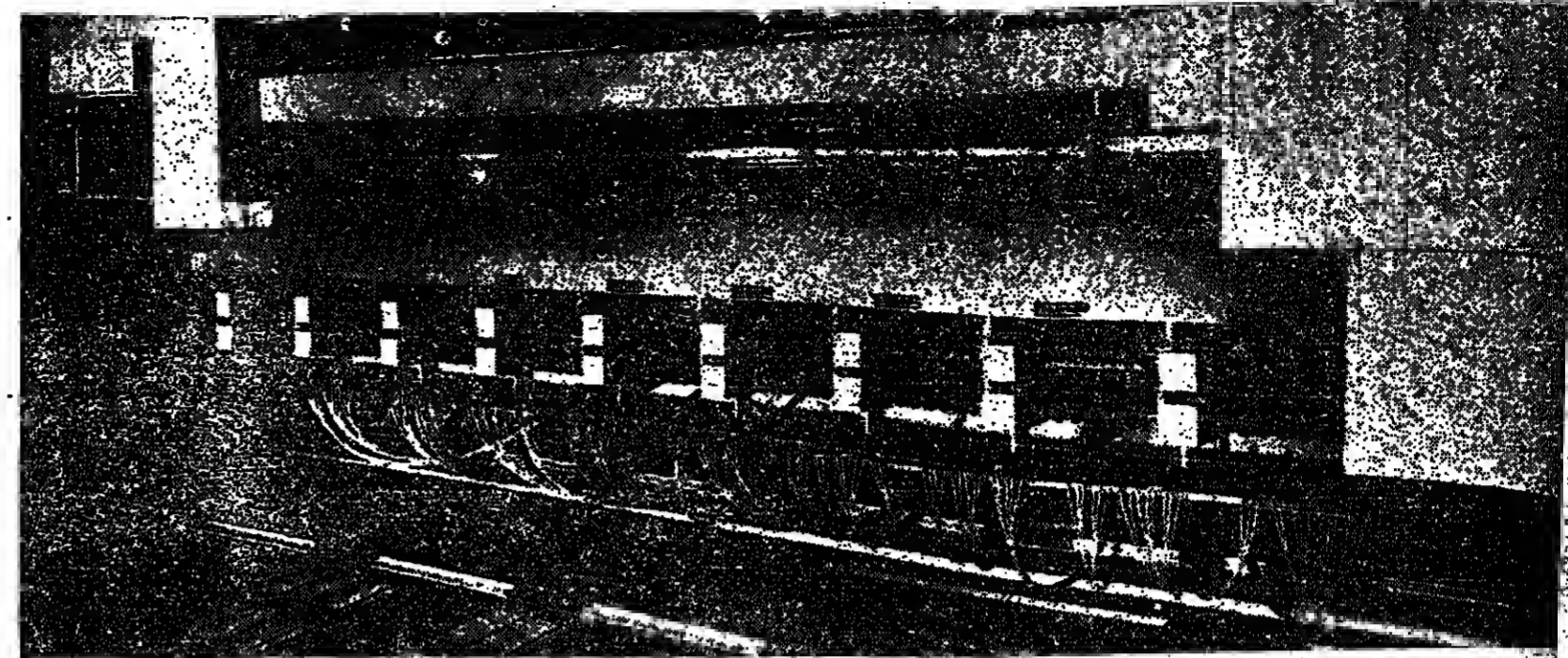
Already a 1-metre-width machine has proved the system to be viable and now a 4-metre-width machine has been supplied to Bond Worth by Platt Saco Lowell, which company still owns the machine. As it is built in 1-metre sections, virtually any width can be supplied in the trade. To bring the trial products close to Axminster, the first carpets will have six rows of tufts per inch, but this can be increased to eight, nine or even ten rows per inch if required.

### Faster

Where Bondax is expected to gain over the classical Axminster machine is that whereas the Axminster has 27 mechanisms, Bondax has only five and is a substantially faster machine, although somewhat slower than modern tufting machines. As individual tufts are inserted into the thermoplastic coating, only a minimum of yarn is required for a given weight of pile.

What happens now that Bond Worth has its problems is not yet clear, but it would look as though the machines will be sold and the process will either involve a royalty per yard produced or, for certain markets, outright fees may be charged. In tufting machinery Cobble Blackburn has had great success with its 252-roll "clutch-in-roll" machine which allows patterns double the width previously attainable to be tufted, but this Lancashire-based company has now developed a machine that has considerable potential for the fine gauge trade. It has been designated the Modular machine.

In previous types of tufting machines the basic elements, such as needles, loopers, etc., have been mounted individually and with every item it was necessary to position the element and then tighten it in place. In the modular machines a system that has long been in use in the warp knitting trade has been adopted. Instead of



A 252 roll "clutch-in-roll" scroll tufting machine built by Cobble Blackburn, which doubles pattern width potential on broad tufting machines.

having individual elements the new machine uses sets of parts which are mounted in blocks—or "leads"—of precision moulded metal each of which is about 11 inches wide.

For say a 1/16 inch gauge machine there would be some 20 needles in each module and the whole element would be about the same size as a matchbox. This means a machine can be fitted with sections of parts very quickly and with very great accuracy. The importance of this can be measured from the fact that in a four-yard width, 1/16 inch tufter there would be over 2,300 individual needles and corresponding numbers of loopers etc. while with a 3/64 inch gauge machine there would be over 1,800 parts, each of which in the past had to be individually mounted.

As the industry moves towards very fine gauge carpets of the velvet type, so the problems of maintaining these machines increase. This modular concept will certainly be a great help in making life simpler for the machine minders and should anything be damaged a small section can at once be removed and a substitute inserted without delay.

Such has become the size of the tufted carpet industry in world terms that it has been felt possible now to introduce a completely new company within the framework of the trade. West End Tufting Machinery, Oswaldtwistle, has been set up near Accrington and Blackburn by Mr. Ronnie Ellison, a well known figure in the trade. He feels that a company that purchases older machines, completely refurbishes them for resale, will provide a useful service. In addition he is also planning to supply parts for Ellison tufting machines, which is something that has been problematical since the company closed down a few years ago.

With the tendency towards ever finer gauge machines Edgar Pickering (Blackburn) has been moving towards the development of a number of new ideas in this area. The most recent is probably the two-pile height "cut-cut" machine. This is a 5/64 inch gauge machine that is able to produce patterned cut pile carpeting in two different pile heights. But in the near future the company envisages a new cut pile machine which will be down to 1/16 inch gauge.

Of course, as the machines become finer, and the trend in the industry is up-market with softer, richer velvet-type constructions, so the yarns required become ever finer. In these new machines it is likely they will depend in the first stages on BCF nylon yarns in the 650-700 denier range and, because of possible yarn irregularities, it is very much a second stage development to see fine count spun yarns being used in this sector. As the machinery comes out of Blackburn so the carpets that will be made will come to resemble velvets rather than classical carpets. There is a clear move towards higher quality and more sophisticated equipment.

There is in Britain today immense carpet printing capacity and a high proportion of tufted carpet is now being printed—mainly by rotary screen printing machines such as the Mitter and Zimmer units.

### Change

But with the installation of the first European Millitron machine by Shaw Carpets, the nature of the trade has begun to change once again. This American machine uses tiny jets to inject colour into the pile of the carpet. Unlike the screen printing machines that are used on loop pile carpet, Millitron is largely confined to cut pile products, although this will undoubtedly change as more comes to be known about the process.

Peter Zimmer in Austria is actively developing a competitive system which, unlike the Millitron machine, is inter-side to side and at interval jets will traverse the carpet from side to side and at intervals jets will be signalled "print" or "no print" in order to build up the pattern. The number of colours applied will depend on the number of traversing carriages in the machine, as each will provide one colour. It is claimed by the Australians that this will be a cheaper machine than the American equipment and that there will be no royalties charged.

But now a new development

by Edgar Pickering (Blackburn) has seen what is perhaps a significant breakthrough in the Crawford-Pickering machine. In this machine a sheet of yarn is taken through the machine and at each colour stage a pair of dyestuff-impregnated pads close over four ends of yarn and so colour it with that shade.

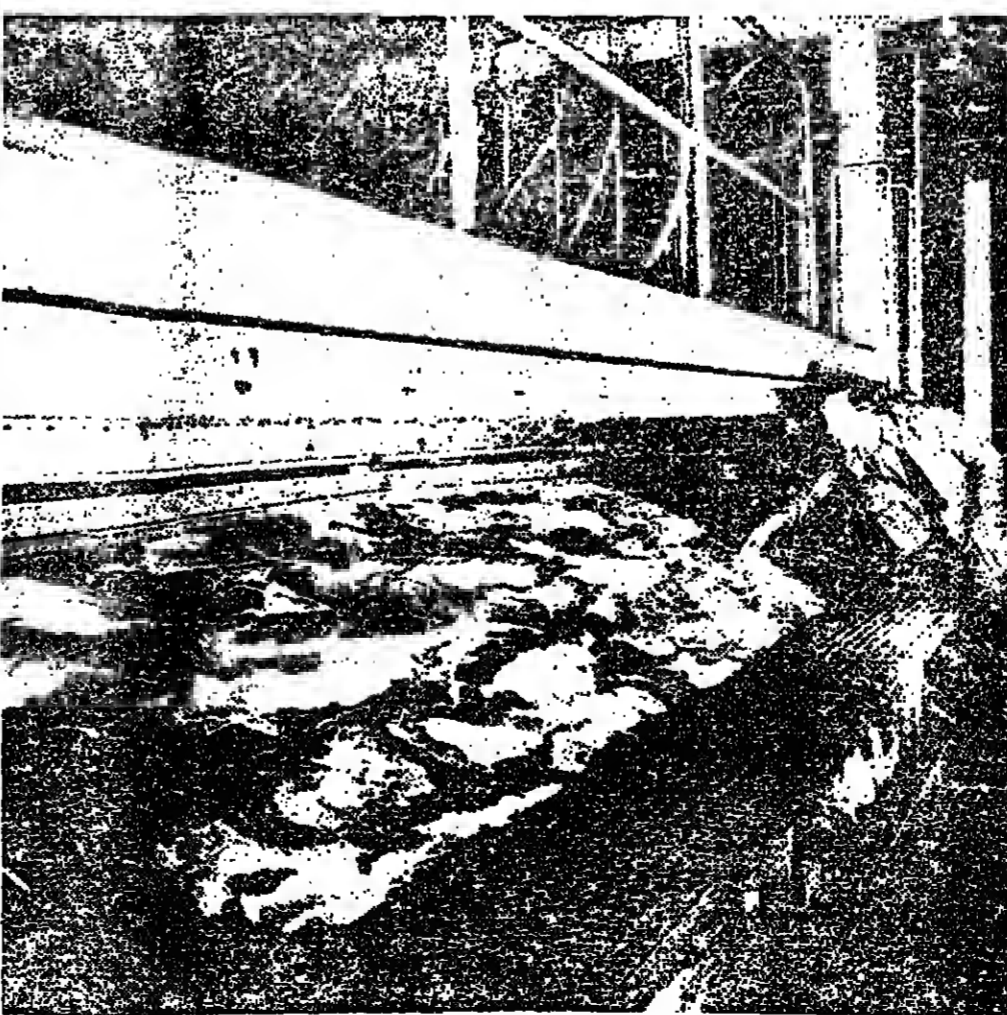
In the MK II machine a major step has been taken in that instead of pads above the yarn, a hard roller is used and the impregnated pads from below rise to press the yarn against the roller. This means that only half the number of pads will in future be required, but in the latest version of the machine it has also proved feasible to take 8 ends of yarn across each pad.

The possible dangers of contamination have been overcome as the roller has a doctor that removes any excess dyestuff that might be left after printing. The company has great hopes for this newest machine and at the Northern Floorcoverings Fair, in Harrogate, samples will be shown that have been produced on carpets with nylon, polyester and "Acrilan" acrylic fibre. Already twelve machines of the Crawford-Pickering type are running in various parts of the world. Nine of these are 6-colour machines, while there are two 8-colour machines and one capable of applying 10 colours. After the sheet of yarn has been printed and the colour set in the yarn, it is then tufted into patterned carpet that comes close in appearance to a patterned Axminster.

With the MK II machine, Pickering is placing great hopes in this new development as the entire process has been greatly simplified and requires only half the controls of the original machine.

Although business is not exactly booming, the carpet machinery suppliers are extremely active. Individual attitudes towards the way the industry is evolving vary widely and each company is placing great effort into what it believes will be the best way towards an assured and lucrative future. But this is happening against a background where even the trade itself is by no means clear in its own thinking as to what is going to be the most likely trend, let alone the most profitable.

Peter Lennox-Kerr



The patterning area of Shaw Carpets uses £1.8m. Millitron computer-controlled dyeing machine.

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(4) Short-term	9.37	9.64	8.53	9.47	9.41	9.44	0.02

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		dividend	5 Susp.	6 Suspended	7 unexpired
	1 Seller—Unquoted	2 Ex-4th			

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**TRUSTS—Continued**

Stock	Price	Chg.	Vol.	Cr. Vol.
30	12 1/2	1/2	10 10	1 1/2
40	20	1/2	10 10	1 1/2
50	25 1/2	1/2	10 10	1 1/2
60	25 1/2	1/2	10 10	1 1/2
70	25 1/2	1/2	10 10	1 1/2
80	25 1/2	1/2	10 10	1 1/2
90	25 1/2	1/2	10 10	1 1/2
100	25 1/2	1/2	10 10	1 1/2
110	25 1/2	1/2	10 10	1 1/2
120	25 1/2	1/2	10 10	1 1/2
130	25 1/2	1/2	10 10	1 1/2
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770	25 1/2	1/2	10 10	1 1/2
780	25 1/2	1/2	10 10	1 1/2
790	25 1/2	1/2	10 10	1 1/2
800	25 1/2	1/2	10 10	1 1/2

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Sp. 192	P. & O. Dtd.	5	Brit. Petroleum	40	
Star	18	Placeys	7	Burmah Oil	3
Acridian	17	R. H. M.	5	Shell	25
Electric	16	Rash Pnt. 'A'	18	Ultramar	18
40	10	Reed Ind.	8		
De Nei	7	Heyrleide	20	Mines	
'A'	12	Spillers	4	Charter Cons.	12
Edian	10	Teebo	22	Charterl. Fin.	17
10	10	Thorn 'A'	13	Cons. Gold	10
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# FINANCIAL TIMES

Monday September 5 1977

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## ET Monthly Survey of Business Opinion

### Industry not expecting wages explosion

INDUSTRY DOES not believe there will be a wages explosion during the coming 12 months though it is expecting pay increases above the Government's 10 per cent target.

This is indicated by the latest Financial Times monthly survey of business opinion published this morning. A large majority of the companies interviewed believe the rise in wage costs will be more than 10 per cent in the next year with a median increase of 12½ per cent. This is some way below many other projections—generally in the range of 12 to 17 per cent—though the figures are not strictly comparable.

The interviews for this month's survey—covering non-electrical engineering, brewing and distilling and paper and connected industries—were mainly carried out in the first half of August.

Uncertainty about the rate of increase of wages overshadows the replies to a number of the broader questions on business confidence in the survey. Although there is slightly more optimism about the outlook for the U.K. economy generally than before, there has been little change in the degree of optimism about the business prospects of particular companies.

The overall picture is of a slow recovery in both demand and expected output. While export prospects remain strong, all three of the sectors interviewed this month show a greater inclination to mention

price competition and the erosion of the exchange rate advantage following the stability of sterling.

But the expected pick-up in production over the next 12 months is still unlikely to be sufficient to offer any real hope of an end to the rise in unemployment with a rough balance between those expecting to increase their labour force in the next year and those projecting a decline.

The new survey also confirms the recent revision downwards of the expected recovery in capital investment as the proportion of companies expecting expenditure to rise in volume during the next 12 months has declined for the second month running.

Survey Details Page 12

#### EARNINGS ON CAPITAL

	4 monthly moving total				August 1977			
	May	Apr.	Mar.	Feb.	Eng.	Brews. &	Distills.	Paper
Those expecting earnings during current year to:								
Improve	63	63	61	57	48	100	45	45
Remain the same	10	11	23	31	25	—	—	—
Contract	18	16	11	7	27	—	—	29
No comment	9	10	5	5	—	—	—	—

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### I may pull out of research tobacco substitutes

BY STUART ALEXANDER

ICI MAY pull out of any further research into tobacco substitutes. The company is disappointed with the sales performance of NSM so far which it developed in conjunction with Imperial Tobacco and with the lack of Government support for a project it sees as potentially of lasting benefit.

To introduce modifications to the present product to improve burning characteristics and undertake the detailed development work and testing that would be required for another generation of NSM, the cost could be between £10m and £15m, of which ICI would have to pay two thirds.

ICI, which did most of the research and development work on NSM, would like to see the present product generating more cash flow before it embarks on a programme of new research.

Meanwhile, it has run down its project team from 100 plus technicians and engineers, to a total of 35. Last year, Courtauld abandoned research into a tobacco substitute.

ICI's dilemma is partly because the £15m plant at Ardross, Scotland, built at a cost of £10m, is running at between 5 and 10 per cent of capacity with no sign of an early upturn. This has also reduced the number of jobs originally envisaged.

Imperial is still adamant that substitutes have taken a 3 per cent share of the market, of which it claims two-thirds. But Gallaher says the original 3 per cent has dwindled to below 2 per cent, and that this has been drawn from an existing market rather than representing any increase in the overall market.

ICI claims that with further research the present NSM could be modified, as is normal with all new products with a scientific base, and that eventually cigarettes could be made with at least 50 per cent substitute.

This, it says, would significantly reduce the tar delivery and improve the product on offer to smokers.

It feels that the lukewarm Government reception and criticism from Action on Smoking and Health and the Health Education Council could kill the project.

This has also had an adverse effect on the prospects of overseas sales which are needed to give the Ardross factory a level of production which could make it financially viable.

Before the launch of substitutes in the U.K. on July 1, it was said that the U.K. would be the focus of world attention, both in terms of the announcements by the Government-appointed

Hunter Committee, which looked into the use of substitutes, and their subsequent success or failure in the market place.

Under the agreement with Imperial, set up in 1967, ICI paid two-thirds of the development costs and now has a two-thirds share in NSM Ltd, which markets the substitute.

Both ICI and Celsene Corporation of America, which developed and manufactures Cytel, feel that having been encouraged by the Government to research these materials, they have now been damned with faint praise and a negative attitude, while Government-sponsored pressure groups have been hostile.

However, Celsene plans to continue its research programme into a new generation of Cytel, although it is examining the possibility of the research in the light of market developments in the U.K.

There has been some increased interest in Cytel outside the U.K. and an Israeli manufacturer has announced a Cytel cigarette. NSM samples have also been sent to Israel.

While the early days, there are signs that a section of the population is turning to substitutes, and retailers have indicated they are prepared to continue stocking them, even with sales at a low level.

### Warning of major raw material price increases in pipeline

BY DAVID FREUD, INDUSTRIAL STAFF

A WARNING that the slow-down in price increases for key raw materials could be the lull before the storm has been made by the Institute of Purchasing and Supply.

Figures reported to the institute of price increases—due this month—sought by Britain's key suppliers of raw materials and bought out components indicate that a number of major rises are in the pipeline.

The main materials affected will be paints and industrial coatings, paper and packaging.

The Institute's Procurement Price Monitor was well down in August. The average increase notified by the institute's panel of buyers was 4.49 per cent, compared with 7.55 per cent in July.

The rate of increase has been dropping steadily since January, when it stood at 10.91 per cent. The Institute commented: "The drop-off in industrial costs now to evidence has largely resulted

from price reaction on the commodities market."

The biggest movements in the rate of increase between July and August were in metals and chemicals. The effect of the price rises put up by the increase in metal goods prices to 8.15 per cent, compared with 6.95 per cent previously.

By contrast, chemical prices went up by 5.89 per cent in August compared with 10.47 per cent in July.

### Forty power stations may stop

BY OUR LABOUR STAFF

A TWO-DAY STRIKE by workers at 40 of the 170 power stations may begin to-night for improved shift pay and fringe benefits.

A meeting of the unofficial shop stewards' committee, based in Yorkshire, rejected an offer yesterday from union officials that the claim would be raised officially in negotiations within the next few weeks.

The stewards' committee felt the union action had come too late to meet the demands of members in the power stations.

If the strike, due to begin at 10 o'clock to-night, goes ahead, the effect will depend on the number of workers supporting the action, and on consumer demand. Rota cuts of between three and four hours cannot be ruled out, but the strike receives total support.

But the Central Electricity Generating Board can switch

power throughout the country by way of the national grid.

The stewards themselves said yesterday that they did not want a collapse of the national grid.

The power workers seek an increase in shift pay from £4 to £10 a week; transport allowances to and from work; and compensation for overtime.

By contrast, chemical prices went up by 5.89 per cent in August compared with 10.47 per cent in July.

### Engineer delegates rebel

be done when he said the TGWU executive would be "reviewing the outcome in a fortnight". He argued that the executive normally followed Congress's decision, but added: "It is always open to the constitutional authorities within the union to look at our requirements."

He went on to warn of pay difficulties because of the effects of inflation on the cost of living, which can be negotiated at any time, and because of the need

of many companies to restore their pay structures.

He singled out British Leyland and said that their problems could not be dealt with without some breach of the rule.

To postpone or delay would worsen and deepen the problem, and arbitrary timing could put enormous pressure on the works," he said. British Leyland with broad union support is trying to bring all its 34 plants on

## Drop in ferrous scrap business exceeds £100m.

BY ROY HODSON

TURNOVER IN the ferrous scrap business has fallen by more than £100m a year because of the recession in world steel-making. Some British traders are making heavy losses.

The market has moved against the scrap companies once again with a new round of price cuts by British Steel for the scrap it is prepared to buy-in being applied this week.

The merchants hoped for a revival in demand for scrap as the steel mills started up again this month after the summer holidays. Instead, British Steel discussed possible cuts of between £2 and £4 a tonne for some grades of scrap.

The prices being offered by the corporation are secret. But it is understood that following representations from the merchants and their national body, the British Scrap Federation, the corporation has trimmed its latest price cuts to between £1 and £2 a tonne for a limited number of grades.

The private sector steelmakers are generally offering prices for scrap as good as British Steel's levels or, in some cases, slightly above. The pressure towards cheaper scrap have come almost wholly from the nationalised steel industry.

There have been 11 price reductions for ferrous scrap in the last 18 months. The companies complain that the very frequency of the reductions is so damaging as it is removing any element of stability from the trade.

Scrap prices peaked in mid-1976 at between £43 and £48 a tonne. Present prices for the same qualities of scrap range from £25 to £28 a tonne.

The companies which bought quantities of scrap at higher prices and then stockpiled are facing the worst losses. They are now having to clear their yards at loss-making prices. The trade was estimated to

have an annual turnover of some £400m a year last year with some 10m tonnes of scrap being handled. The volume is down by 2m tonnes and the fall in prices has cut turnover to, at best, some £300m a year.

The trend in scrap handling towards a high degree of automation during the last few years is working against some companies which invested in expensive plant during the boom and are carrying high interest charges.

At least five of the big fragmenters, which are used to crush motor-cars, have been temporarily withdrawn from service.

A further effect of the slump in demand for scrap is that the itinerant collectors who traditionally have made a living by collecting scrap from households and small businesses to resell it to the bigger companies are disappearing.

#### Persuasion

The burden of collecting scrap is being thrown more upon the local authority refuse services. Householders are being asked to separate their refuse into washing machines and similar redundant household items they are having to persuade the refuse collectors to take them away.

British Steel has no hope of higher scrap prices or brisker demand this year. The corporation has the problem of getting through the winter with the demand for steel continuing at a very low level both at home and overseas.

Some steelworks are producing at less than one-third of their theoretical capacity.

But in spite of the trading crisis there have not yet been any significant business casualties or mergers among the scrap companies. By and large the trade is settling along on the money made during better days.

## Rolls-Royce to monitor its research activities

BY MICHAEL DONNE, AEROSPACE CORRESPONDENT

ROLLS-ROYCE is to undertake similar internal studies in the past in such areas as manufacturing and general management, but this is the first time since 1971 that the whole research and development effort has been subjected to such a review.

Last year, the company spent over £57m on research and development, nearly £19m more than in the previous year.

The review is considered important since the aerospace industry is on the threshold of an upsurge in airliner buying, especially in the short-to-medium range field. Rolls-Royce needs to know whether there are any additional areas that it ought to be working in.

The company's major area in which the review so far appears to have gone little work is that of a replacement for the Spey engine, which powers a large number of short-to-medium range airliners like the U.K. Trident and Conquest.

This lack of a Spey replacement of around the "ten-ton thrust" class, or about 18,000 lb, to 22,000 lb, thrust, has obliged manufacturers like British Aerospace to adopt the Franco-U.S. CFM56 engine, the power unit for such new airliner designs as the X-Eleven, which is a major contender for the short-to-medium haul markets.

The company has conducted

A successful tender on the second, larger leg of the Hong Kong Mass Transit tender next year would further enlarge this ratio, and yesterday's interim figures emphasised how steel—close to a third of Laird's turnover—will remain a drag on profits for a fourth year.

A slight improvement from break-even has been achieved on light plate, but there is no volume yet in the heavy plate from which Laird's mill should make its money.

The 19 per cent pre-tax improvement—leaving the nationalised Scottish Aviation's losses out of the 1976 figures—has come from motor components and railway and bus engineering. A £40m increase in overseas sales partly reflects earlier charging on the successful German motor components subsidiary, and leaves retained profit only 81 per cent ahead

#### Weather

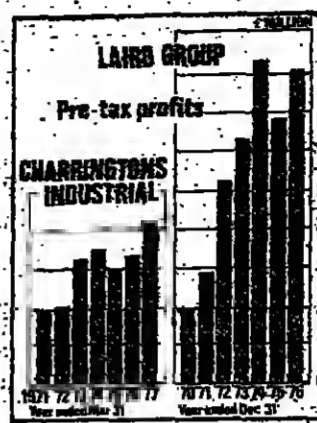
**U.K. TODAY**  
SOME rain or showers over most of the country, except for Wales and Central England where it will be mainly dry. Sunny periods in northern areas. London, E. Anglia, E. Midlands. Mainly dry, sunny periods, perhaps some rain later. Max. 18°C (64-66°F).  
S.E., S.W. Cent. S. England, Channel Is.  
Cloudy, a little rain at times. Max. 17-18°C (63-66°F).  
W. Midlands, Wales  
Sunny intervals, becoming cloudy with some rain. Max. 17-18°C (63-64°F).  
E. N.E. Cent. N. England  
Sunny periods, scattered showers. Max. 17-18°C (63-64°F).  
N.W. England, Lakes, I. of Man, S.W. Scotland, N. Ireland  
Sunny intervals, occasional showers, prolonged at times. Max. 15-17°C (59-63°F).  
Rest of Scotland  
Sunny intervals, scattered showers, heavy and prolonged at times. Strong winds. Max. 12-14°C (54-57°F).  
Outlook: Changeable and cool in the North with rain or showers. Mostly dry and warm in the South with sunny periods.

BUSINESS CENTRES		Today	Mid-day	Today	Mid-day
Amsterdam	10	10	10	10	10
Brussels	10	10	10	10	10
Frankfurt	10	10	10	10	10
Geneva	10	10	10	10	10
London	10	10	10	10	10
Madrid	10	10	10	10	10
Paris	10	10	10	10	10
Rome	10	10	10	10	10
Stockholm	10	10	10	10	10
Switzerland	10	10	10	10	10
Vienna	10	10	10	10	10
Zurich	10	10	10	10	10

HOLIDAY RESORTS		Today	Mid-day	Today	Mid-day
Algarve	10	10	10	10	10
Andalusia	10	10	10	10	10
Barcelona	10	10	10	10	10
Catalonia	10	10	10	10	10
Costa Brava	10	10	10	10	10
Crete	10	10	10	10	10
Cyprus	10	10	10	10	10
France	10	10	10	10	10
Germany	10	10	10	10	10
Greece	10	10	10	10	10
Italy	10	10	10	10	10
Japan	10	10	10	10	10
Malta	10	10	10	10	10
Spain	10	10	10	10	10
Switzerland	10	10	10	10	10
Taiwan	10	10	10	10	10
Turkey	10	10	10	10	10
U.S.A.	10	10	10	10	10
U.S.S.R.	10	10	10	10	10

## THE LEX COLUMN

# Laird logic in the steel slump



LAIRD GROUP  
Pre-tax profits  
CHARRINGTONS INDUSTRIAL  
1971-1976

So it looks as though Laird has decided to treat its nationalisation cash as a once in a lifetime opportunity to change the balance of its assets, do well to break even, and product base of a significant scale. In this sense, which the Chartringtons fulfils at least four separate criteria. It is big, becoming effective enough to have a significant impact on a group which is currently capitalised at around £23m. Its record suggests that it is a stable business, generating a strong and regular cash flow through its fuel distribution business. And to judge by recent changes at the top, its returns could benefit from a more aggressive management approach. Finally, it would give Laird a worthwhile share of some quite new markets.

But all this is of very limited interest to Chartringtons shareholders. From their point of view, Laird is either going to have to offer more or forget the whole thing. The better option, be on the first of these options, but the bidder's tactics have at least succeeded in removing the speculative froth from the Chartringtons shares, which although still above the offer price are well below their recent peak. The one message that Laird is trying to promote is that it would rather drop out than get involved in an auction.

**OCL**  
The last Overseas Containers report remarked drily that "those who work in the cargo floor business are accustomed to trouble of some sort or another at some time of the year in one or other trading area." But for OCL, 1976 was a year when most things came right. World trade was moving back to 1974 levels, with the Japan-Australia and Europe-Japan trades swinging strongly in OCL's favour, and the group had few labour disputes. Around two-thirds of the profits came in the second half, though that is an atypical trading cycle, with the Europe-

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**Reserves exceed £100m Assets exceed £128m**

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